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Hunters on Driftwood River, Northern Ontario.

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# Canada 1950-51

THE OFFICIAL HANDBOOK OF PRESENT  
CONDITIONS AND RECENT PROGRESS

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PUBLISHED BY THE AUTHORITY OF  
THE RIGHT HONOURABLE C. D. HOWE  
MINISTER OF TRADE AND COMMERCE

PREPARED BY THE  
DOMINION BUREAU OF STATISTICS  
DEPARTMENT OF TRADE AND COMMERCE  
OTTAWA

Price 25 Cents



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OTTAWA  
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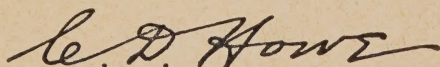


## Foreword

THE "Canada" Handbook Series was initiated twenty years ago to supplement the field of the *Canada Year Book* by offering to teachers and pupils in the public schools and to Canadian citizens generally a brief and attractive record of current economic conditions at a price within the reach of all. The *Year Book* is primarily a detailed reference work and is not designed to meet the need for a popular publication medium of this kind.

The growing popularity of the Handbook and the numerous special editions and reprints that have been required, by Government Departments and outside sources to meet their special needs, attest to the soundness of the original plan and to its value.

The past two decades have seen expansion of the national economy in every direction and, since a considerable proportion of space in the Handbook is allocated to illustrations, the editorial task of giving a well-balanced presentation in a publication of this size and at low cost becomes more difficult each year. Currently many thousands of copies are being distributed abroad through our Diplomatic and Trade Commissioner services and it is desirable for this reason alone that the Canadian economy should be explained fairly completely and that appropriate feature material should be included.



*Minister of Trade and Commerce*

OTTAWA, February 1, 1950.





## Prefatory Note

5

*THIS Handbook has been prepared and edited in the Year Book Division of the Dominion Bureau of Statistics from material that has, in the main, been obtained from the different Divisions of the Bureau. In certain special fields information has been kindly contributed by other branches of the Government Service.*

*The Handbook is planned to give a balanced picture of the general economic and social structure of Canada, the weight of emphasis being placed from year to year on those aspects that are currently of most importance, since there is not space to deal adequately with all. Chapter material has been brought up to date as at the time of going to press. The leading special article in this edition deals with "The Political Evolution of Canada".*

*H. Marshall*

*Dominion Statistician*

## Symbols

The interpretation of the symbols used in the tables throughout this publication is as follows:—

- .. to indicate figures are not available.
- ... to indicate figures are not appropriate or not applicable.
- to indicate nil or zero.
- to indicate that the amount is too small to be expressed or where “a trace” is meant.
- p to indicate that figures are preliminary.



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Vacationists enjoying Nova Scotia scenery.

*Kodachrome—Courtesy  
Nova Scotia Government Bureau of Information*



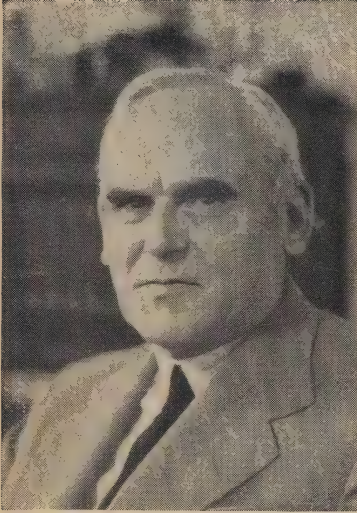
Skier, at an altitude of 6,800 ft., nearing the top of the chair lift, Mount Norquay, Banff National Park, Alta.

*Kodachrome—Courtesy  
Department of Mines and Resources*



# Introduction

## *Economic Conditions at the Close of 1949*



*The Right Honourable C. D. Howe,  
Minister of Trade and Commerce.*

**D**URING 1949 the Canadian economy was characterized by high production and employment. For the year as a whole, the gross national product will probably exceed \$16,000,000,000 and show some increase over 1948 in real terms. Unemployment at the end of October, although somewhat above 1948 levels, was less than 3 p.c. of the civilian labour force.

In general, the inflationary pressures that were reflected in the rising prices of 1948 were no longer apparent in the latter part of 1949. For the past two or three years short-run supply conditions have been a major consideration in any appraisal of the economic situation. This is no longer true. Post-war shortages, which contributed so much to price increases during the period 1946-48, have to a large extent

disappeared and the influence of deferred demand has abated. Longer-run and more normal factors, particularly from the demand side, must now be given greater weight in assessing the inherent strengths or weaknesses of the Canadian economy.

At the end of the year domestic demand seems firm. Personal incomes have continued to increase throughout the year. Government expenditure is rising. Any tendency for capital investment to decline because of the need for greater selectivity in business expansion seems likely to be offset by projected expansion in the oil and iron-mining industries and in housing.

The most obvious soft spot in demand lies in foreign trade. Here, improvement in the European domestic supply, combined with the dollar difficulties of the Sterling Area, raises serious problems for Canada's exports, particularly of agricultural produce. It is impossible to judge the extent of the setback this may give to the Canadian economy. Looking beyond

the immediate future, however, this unfavourable influence will be offset to some extent at least by the increasing industrialization of Canada and by the continuing growth of population which assures a greater domestic market.

**Foreign Trade.**—Canadian exports are now running at a lower figure than in 1948, and for the year as a whole, a small decline in volume is expected. In 1949, Canada's current account surplus with all countries will be considerably less than the \$453,000,000 surplus of 1948, largely because of the substantial increase in imports from the United States.

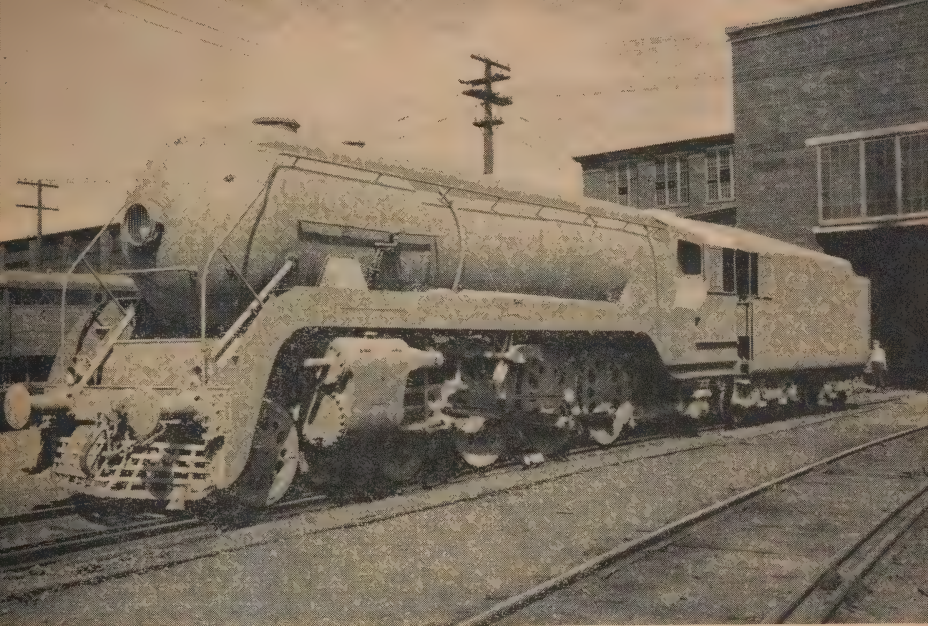
Merchandise exports to the United States were \$1,344,000,000 and exports of non-monetary gold \$126,000,000 for the first eleven months of 1949 compared with \$1,353,000,000 and \$107,000,000, respectively, for the first eleven months of 1948. At the same time, merchandise imports from the United States increased markedly from \$1,646,000,000 in the first eleven months of 1948 to \$1,801,000,000 in the first eleven months of 1949. The unfavourable balance with the United States is even greater when invisible items such as interest and dividends, and tourist expenditure are taken into account. Merchandise exports to the United Kingdom were \$655,000,000 in the first eleven months of 1949 compared with \$638,000,000 in the first eleven months of 1948 while imports were \$287,000,000 in the first eleven months of 1949 compared with \$275,000,000 in the first eleven months of 1948.

There was no decline in Canada's holdings of gold and United States dollars since the unfavourable balance of trade with the United States was more than offset by favourable balances with the United Kingdom and other overseas countries. These latter favourable balances provided Canada with United States dollars, except for the part financed by the \$120,000,000 borrowed by the United Kingdom from Canada under the terms of the United Kingdom Financial Agreement Act of 1946. Canada's holdings of gold and United States dollars rose from \$998,000,000 at the end of 1948 to \$1,117,000,000 at the end of 1949. Nevertheless as long as overseas currencies are not freely convertible into United States dollars, Canada is faced with the very real problem of redressing this lack of balance in her trade with the United States and the United Kingdom.

It is too early to assess the effects of devaluation of the pound sterling and other currencies on the direction and extent of world trade and particularly on Canadian exports. Despite the devaluation of the Canadian dollar by approximately 10 p.c., sterling devaluation has raised the price of Canadian agricultural produce abroad and has created additional obstacles for this large and vulnerable part of our export trade. At time of writing, the full extent of the United Kingdom food contracts for 1950 is not known but it seems clear that some reduction in both prices and quantities will take place. Canadian non-agricultural exports to overseas countries declined during 1949 because of the dollar difficulties of these countries, and the competitive position of Canadian merchandise was further weakened by devaluation, except as regards the United States. Fortunately the domestic market has absorbed much of this production and the general strength of Canadian and United States demand continues in some measure to offset the decline in overseas markets.

At the close of 1949 imports remain high because of high levels of employment and income and the needs of capital expansion. Exports, on the other





*One of the 120 powerful steam engines built in Montreal for service in India. In the background is a streamlined diesel-electric locomotive, a complete line of which is being manufactured for use on Canadian and foreign railways.*

hand, suffer both from the shortage of dollars overseas and more normal conditions of supply in world markets. Moreover, despite some favourable factors such as the widespread endorsement of gradual tariff reductions and removal of trade barriers, multilateral trading with free convertibility of currencies seems still to be some distance in the future. Consequently the bilateral aspects of Canadian trade continue to be of great importance. The problem of Canadian trade is therefore twofold: first, to maintain the volume of exports relative to imports and second, to correct the direction of trade so that both the favourable balance with the United Kingdom and the unfavourable balance with the United States will tend to diminish.

**Capital Expansion.**—Early expectation of a record level of private capital formation in 1949 now seems to have been fully justified. The value of new building and engineering construction rose substantially and business purchases of new machinery and equipment were also at higher levels. For the year as a whole it appears that investment expenditures on plant, equipment, and housing will be more than 10 p.c. higher than for 1948.

A substantial part of the increased construction activity in 1949 was the result of the record house-building program. More than 95,000 new units were completed during the year, including the net increase from conversions. In 1948, 81,000 units were completed. Employment in building and general engineering construction increased by about 11 p.c. over 1948. The monthly average of construction costs has been a little higher than in 1948 although building material prices have been declining



*Cedar logs on the haulway of a British Columbia sawmill.*

slightly since early 1949. By the end of the year it appeared as if the peak in construction costs had been reached.

There was a general increase in the supply of Canadian manufactured machinery and equipment and factory shipments were somewhat higher than in the first nine months of 1948. Imports of all types of machinery were up about 15 p.c. Sales of farm machinery were much higher than in 1948. The value of farm machinery shipments by Canadian manufacturers was about 30 p.c. higher than in 1948 and imports were almost 50 p.c. higher than the year before.

Net addition to inventories, another form of business investment, fell off sharply during the year, as industry and consumer pipelines were filled. Business inventories (excluding farm inventories) increased by about \$200,000,000 in 1949 in contrast with the increase of \$700,000,000 in 1948.

**Income and Expenditure.**—Personal income during 1949 was again higher than in any previous year. Salaries and wages increased although at a slower rate than in the period 1946–48. Net income of farmers and other unincorporated business did not appear likely to reach the 1948 peak of \$2,900,000,000 since total returns from the 1949 crop are expected to be lower than in 1948.





*Spraying potatoes on a New Brunswick farm.*

The impact of the higher level of personal income in 1949 was accentuated by the sharp reduction in personal income-tax rates and increased exemptions. The total reduction in tax payments was estimated at \$282,000,000 over the year. At the same time, the distribution of 1943 and 1944 compulsory savings in the spring of 1949 released approximately \$222,000,000 for personal use. In addition, the Wheat Board distributed equalization and adjustment payments to farmers amounting to \$205,000,000.

For the first time since the end of the War, the increase in income is not set against a background of sharply rising retail prices. Food prices during 1949 were only slightly higher than the year before and clothing prices advanced only 5 p.c. as compared with 21 p.c. in 1948. The repeal of the wartime excise taxes in the 1949 budget and the reduction of the 25 p.c. luxury tax to 10 p.c. may also result in lower prices. Rents and the prices of various services rose in 1949. At the same time, employment in the service industries was increasing and services began to absorb a larger proportion of personal expenditure. During this year the total value of retail sales advanced more rapidly than retail prices, in contrast to 1948 when the increase in sales lagged behind.

Personal expenditure in 1949 was higher than in any previous year in both value and real terms. Since 1946 personal expenditure has accounted for over 90 p.c. of income after taxes, in contrast with the war years when expenditure dropped to below 80 p.c. The greatest contrast in expenditure is in automobiles and gasoline, furniture and household appliances. Expenditure on these goods and on clothing and household textiles, which were in short supply during the War, rose rapidly in 1947 and 1948 and, although the value of purchases has been more than maintained in 1949, the rate of increase has slackened. Although personal expenditure in 1949 still reflected the effects of deferred demand in some lines, it is not likely that this factor will have any appreciable influence in 1950. The volume and variety of consumer goods on the market at the close of 1949 indicates that more normal conditions will prevail.

**Production and Employment.**—The employed labour force was 5,053,000 in October, 1949, an increase of 195,000 over November, 1948. This increase was almost entirely in non-agricultural employment. The volume of production in manufacturing, mining and power was slightly higher than in 1948, as indicated by a rise of almost 1.5 p.c. in the index of industrial production, while the volume of agricultural production declined by perhaps as much as 10 p.c. in spite of increased acreage.

The physical output of manufacturing establishments was slightly greater for the first eleven months of 1949 than for the comparable period of 1948, and about 93 p.c. above the 1935–39 level. Shortages still persist in a few lines, notably motor vehicles and some construction materials but, in general, full production since the end of the War has produced a much better balance between supply and demand at current prices.

In mining the most significant development was the expansion of Alberta's oil production and the proving of large oil reserves for future development. Apart from the impetus given to the economy by the capital investment in this industry, rapidly increasing production has reduced imports of oil from the United States, and reduced our need for United States dollars. Conservative estimates place Alberta's known oil reserves at approximately 1,000,000,000 bbl. At the present time, actual production is perhaps not more than half this current capacity since the prairie market absorbs only about 60,000 bbl. a day and pipelines to other markets have not been completed.

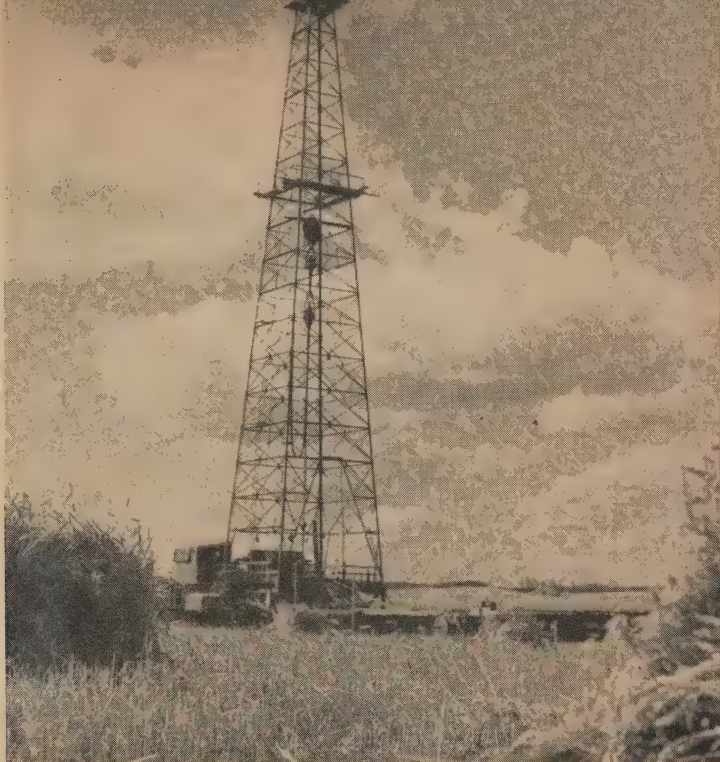
Development of the extensive iron-ore deposits near the Quebec-Labrador Boundary is soon to begin. This program has important implications for Canadian industrial growth, particularly because of the gradual depletion of the Mesabi deposits in the United States. In addition, it supplies an immediate stimulus in the way of capital investment.

The wheat crop is estimated at 367,000,000 bu. or 26,000,000 bu. less than the 1948 crop. The harvest of coarse grains was considerably lower; the production of oats dropped by 12 p.c., barley by 22 p.c. and rye by 60 p.c. from 1948. Inspected slaughterings of cattle and calves were not quite as high this year as last and hog slaughterings declined 13 p.c. The production of milk and butter in 1949 was relatively unchanged from last year.

The favourable employment situation during 1949 is indicative of the tempo of economic activity. The labour force increased in 1949 and although



*Imperial Oil well  
No. 17 stands  
in a wheat field  
near Devon, Alta.*



there was some increase in unemployment, the employed labour force was larger than the year before. The October survey shows a total civilian labour force of 5,200,000 with unemployment of less than 3 p.c. The average weekly wage in eight leading industries was \$43.78 on Nov. 1, 1949, compared with \$42.15 at the same time in 1948.

During the first ten months of 1949, Canadians received a total of \$6,327,000,000 in salaries, wages and supplementary income compared with \$5,867,000,000 in the same period of 1948, an increase of 7.8 p.c. The Canadian industrial scene was comparatively free of labour disputes. The only strike of consequence in Canada was in the asbestos mines during the winter and spring of 1949.

**Prices.**—The price level during 1949 remained fairly stable. While prices were still high, they were gradually coming into adjustment and the inflationary situation of the post-war years abated. The cost-of-living index was 159.6 on Jan. 1 and 161.5 on Dec. 1, while the general wholesale price index showed a slight decline. The main reason for this opposite tendency was that sensitive wholesale prices had reached their peak earlier and had begun to decline at the beginning of the year, while retail prices, previously restrained by regulation, continued to rise slowly. The services such as rents, street-car fares and hospital fees were coming into line with the general price level in 1949. Toward the end of 1948, rent control had been removed from all dwellings becoming vacant, and in November,

1949, rental regulations were further modified by permitting increases of 18 and 22 p.c. on unheated and heated accommodation, respectively, subject to existing leases.

Wholesale prices declined during the year for fishery products, furs, live stock, cotton fabrics, lumber, wood-pulp, scrap iron, copper, lead and zinc. Many of these items are dependent on trading conditions in international markets so that the price decline can be attributed to world rather than domestic demand.

Farm prices of agricultural products wavered during the year, without any noticeable upward or downward trend. Retail prices for food, however, showed a slight advance although declines for some items were noticeable at the end of the year. Building and construction material prices declined somewhat in the latter half of the year.

**Finance.**—Attention in recent years has been focused on the use of the Government Budget as a balance-wheel of the economy, to take up the slack in employment during times of falling national income through increased public investment, and to act as a deterrent to inflation in times of boom by taxing away surplus spending power.

Since a high level of consumption, income, employment and production was maintained in 1949, public investment, which is the corner-stone of counter-cyclical budgeting, has not been called upon to play its compensatory role. The 1949 Budget indicated that the policy of the Federal Government was to defer its construction program except where defence or other essential requirements have intervened. At the provincial and municipal levels, current information with regard to both revenue and expenditure is lacking, but the forecast of intentions at the beginning of 1949 indicated that municipal capital investment would show a moderate increase over 1948, and that provincial capital investment would remain at 1948 levels. The outlook for increased public investment in 1950 centres mainly around developments which are taking place in connection with national defence, the construction of the Trans-Canada Highway, and government plans to assist with the servicing of land for housing and the promotion of housing projects.

The total expenditure of the Federal Government for the first nine months of the year ending Mar. 31, 1950, was \$1,537,000,000, about \$191,000,000 or 14 p.c. over the corresponding period of the previous fiscal year. Increased defence spending accounted for \$77,000,000 of this increase, and payments to Newfoundland under the accession agreement, higher family allowances and old age pensions, and the effects of generally higher price levels of all government operations explain most of the balance.

Federal revenues in the first nine months of the fiscal year 1949-50 were down noticeably to \$1,836,000,000 as compared with \$1,956,000,000 in the previous fiscal period. This represents a decline of approximately 6 p.c. and is the result of substantial reductions in the personal income tax rate, and the abolition of indirect taxes on many articles and services. The surplus of \$300,000,000 for the first nine months will not be maintained since expenditures become very much heavier towards the close of the fiscal year.

Although the net Federal Government debt was reduced in 1948-49 by the large surplus of \$596,000,000, a reduction on this scale will not take



place during 1949-50 since the estimated surplus is only \$90,000,000. In addition, the Federal Government assumed \$72,000,000 of the sterling debt of Newfoundland during 1949-50.

*Money Supply.*—The average money supply of Canada for the first nine months of 1949 was approximately 5 p.c. above that for the same period of 1948. Relative to the value of goods and services produced, the means of payment in Canada has shown a definite decline since 1946.

*Bond Prices and Interest Rates.*—Government of Canada bond prices remained steady in the early months of 1949 but began to move upward in July. Between July and December the price of the longest term Victory Loan bonds (maturing in 1966) increased from an average of 101.12 to an average of 102.65 with the yield declining from 2.89 p.c. to 2.73 p.c.

*Chartered Bank Loans and Investments.*—Average chartered-bank holdings of federal, provincial and municipal government securities during the first ten months of 1949 increased by approximately 8 p.c. over the same period of 1948. At the same time, the volume of commercial loans as indicated by month-end averages increased by 11 p.c. to \$2,350,000,000 as at Oct. 31, 1949. These increases are slightly over-stated due to the inclusion of Newfoundland in the 1949 figures. Government securities and commercial loans as proportions of the total assets of chartered banks held steady at the 1948 ratios of approximately 43 and 25 p.c., respectively.

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*A helicopter, chartered by the Government Topographical Survey, picks up surveyors at a remote triangulation station in that district on the Quebec-Labrador Boundary where the rich iron-ore deposits have been discovered.*



# The Political Evolution of Canada

THE discovery of Newfoundland and the eastern coast of North America is generally credited to John Cabot's voyage of 1497. There is reason to believe, however, that the Grand Banks fishing grounds and the mainland were known long before John Cabot's day. Ships from ports of western England and Brittany are known to have been engaged in the Icelandic and northern fisheries for many decades before 1497, and as early as 1000 A.D. daring Scandinavian and Icelandic sailors are said to have settled somewhere in Nova Scotia. Nevertheless, the recorded history of Canada begins with the Cabot voyages.

On his first voyage in 1497, Cabot, a Venetian domiciled in England, sailed from Bristol under Letters Patent granted by King Henry VII. He landed either on Cape Breton Island or on the coast of Newfoundland, raised the Royal Standard and took possession in the name of the King of England. He explored the southern coast of Newfoundland from Cape Ray to Cape Race, naming the Trinity Group of Islands (now St. Pierre, Miquelon and adjacent islands) *en route*.

During his second voyage, a year later, Cabot followed the mainland southward from about the latitude of Baffin Island, discovered Hudson Strait, sailed down the coast of Labrador, past Newfoundland, Nova Scotia and the New England States as far as Chesapeake Bay.

The coast of North America from Greenland to Florida had in fact been thoroughly explored by the time Jacques Cartier made his first voyage in 1534. Cabot, Corte Real, Verrazano (who gave to the southern part of the mainland its first name of New France), and others prepared the way, each in turn adding to the fund of knowledge about the new continent. Cartier was the first navigator to penetrate inland and explore the unknown regions that make up the vast territory drained by the St. Lawrence and its tributaries. Cartier made three voyages, the first in 1534, the second a year later, and the final voyage in 1541, and it was on the basis of his explorations that France was able to lay claim to large areas in the interior of North America. (See Maps 1 and 2 of insert facing p. 24.) Cartier's first voyage was limited to an exploration of the Gulf of St. Lawrence and neighbouring islands, as well as the mouth of the St. Lawrence River. On his return to France, he reported to the French Court that this new country had great possibilities. He did not bring back the expected spices, gold or silk, but he related stories of fertile lands, dense forests and seas teeming with fish.

On his second voyage, made in 1535, Cartier ascended the St. Lawrence River, explored its shores, passed the mouth of the Saguenay and eventually reached the Indian village of Hochelaga on the Island of Montreal. After spending the winter on a site near what is now Quebec City, Cartier returned to France in 1536. Five years later he made his final voyage. He had hoped



to explore the headwaters of the Ottawa River but ended by following practically the same course as that of 1535.

Cartier's voyages were little more than a memory when Samuel de Champlain carried out his explorations of North America in the early years of the seventeenth century. Accompanied by Sieur de Monts, he established a settlement, named Port Royal, on the Annapolis Basin in 1605. This was the first permanent settlement within what is now known as Canada; in fact, at that time St. Augustine on the Florida coast was the nearest European settlement.

It was 1608 before a permanent settlement was established on the St. Lawrence. In that year Champlain founded Quebec, but during the first winter the settlement was almost destroyed by disease.

Three Rivers was founded in 1634 by Sieur de Lavolette and Montreal in 1642 by Sieur de Maisonneuve on behalf of the Company of One Hundred Associates. These, like other settlements in Canada, faced a hard struggle for many years.

Meanwhile, the English were pursuing their explorations to the north. In 1610-11 Hudson penetrated into Hudson Bay and explored south as far as James Bay. Also in the reign of James I of England, Sir William Alexander, a Scot, endeavoured to establish a colony in Acadia. Very little resulted from his efforts near Port Royal in 1623 and on Cape Breton Island, but this was the first English attempt at colonization on the continent of North America. In 1670 the Hudson's Bay Company was granted a charter by King Charles II. The Company was given control of all lands whose waters emptied into Hudson Bay. This gave rise later on to much dispute with the French whose explorers had worked northward from the St. Lawrence Basin.

A review of European interests in North America at the opening of the eighteenth century shows that New France was then at the zenith of her territorial expansion. Her claims embraced practically the whole of the St. Lawrence and Mississippi Basins. Only the Atlantic coastal area, which constituted New England, the Central, and the Southern English colonies, together with Newfoundland and Rupert's Land, were claimed by the English. The New England, the Central, and the Southern English colonies were bounded on the northwest by the Iroquois lands along the Ohio, on the south by Florida, and were undefined towards the west. The French claimed the territory east of the Mississippi to the Alleghany Mountains but the Royal Charters granted to the English colonists had vaguely extended their territory from "sea to sea" and therefore brought the English into vital conflict with the French in this disputed area. It was, however, the alliance between the Iroquois and the English, much more than the charter stipulations, that was instrumental in deciding the issue in favour of the English.

In the north, Rupert's Land (Hudson's Bay Company domain since 1670) bordered Hudson Bay and Strait, with boundaries that were not specifically defined. The French now disputed with the English a large area of the Hudson Bay Watershed. Newfoundland was English by right of discovery and had been occupied by Sir Humphrey Gilbert in the name of Queen Elizabeth in 1583; since 1621 it had been English by colonization, but France disputed these claims until 1713.

By the Treaty of Utrecht, which ended the War of 1702-13 (generally known as the Spanish Succession or Queen Anne's War) between France

and Britain,\* France surrendered her interests in Newfoundland and gave up her rights to Acadia (which between 1654 and 1667 had been English territory) to Britain: the Island of Cape Breton, however, remained French.† She also relinquished any claims she might have had to the Hudson Bay Watershed. The British succeeded, at Utrecht, in getting an acknowledgment of their sovereignty over the Iroquois from the French, thus greatly strengthening their former claims, based on their charter rights, westward from the Alleghany Mountains.

The next great readjustment in the boundaries of North America was made at the end of the Seven Years' War by the Treaty of Paris in 1763, following Wolfe's victory at Quebec and the capture of Montreal by Amherst. France now definitely withdrew from the mainland of North America. She ceded to Spain all the territory in the Mississippi basin west of the Mississippi River, and to Britain all French territory east of the Mississippi except New Orleans, which went by secret treaty to Spain. Spain ceded Florida to Britain and the latter country restored certain conquests to Spain. British territory, therefore, now included: the Hudson Bay Watershed, the entire St. Lawrence basin including the Great Lakes, the Mississippi basin east of the Mississippi River, the Atlantic and Gulf of Mexico Coasts from Labrador to the Mississippi Delta, and Newfoundland (to which Labrador was transferred).

Even before Feb. 10, 1763, when the Treaty of Paris was signed, the British authorities had pledged the continuance of seigneurialism in Canada. By the Treaty, the additional liberty of the Roman Catholic religion was confirmed to the French inhabitants. The form of government was definitely decided by the Proclamation of Oct. 7, 1763, when civil government was instituted under a Governor to be assisted by a Council composed of British officials and eight persons to be chosen by the Governor from the French Canadian inhabitants.

The English colonists along the Atlantic had at last succeeded in dislodging the French from their position athwart the westward avenue of expansion recognized by their charters. The colonists had aided in the conquest of Canada but whatever hopes they entertained that the St. Lawrence Valley would be a free field for their expansion northward were doomed to disappointment, especially after the American War of Independence, 1775-1781.

By the Quebec Act of 1774, the coast of Labrador was restored to the then "Province" of Quebec and the boundaries of this "Province" were defined as extending north to the Hudson's Bay Company's territory, south to the borders of the English colonies (the Ohio) and west to the Mississippi‡ —to the further disappointment of the Atlantic Coast colonists who, even after the Treaty of Paris, had looked upon the area lying south of the Great Lakes and between the fork of the Ohio and the Mississippi as a legitimate

\* The early colonies were "English", not "British". They became British after the union of Scotland with England in 1707.

† Cape Breton fell to the British in 1745 after a short siege, but was returned to the French by the Treaty of Aix-la-Chapelle. The British finally gained possession of the fortress of Louisbourg and Cape Breton in 1758.

‡ The western boundary of the "Province" of Quebec was defined very vaguely in the Quebec Act and nearly a century later, when the exact boundary of Ontario was being defined, following the creation of the Province of Manitoba, gave rise to much dispute between the Dominion and Ontario. The main point of dispute was whether the western boundary should have followed the true north line from the confluence of the Ohio and Mississippi Rivers to Hudson's Bay territory, as shown by the dotted line on Map 3 facing p. 24, or the east bank of the Mississippi River, as shown on the same map. The former boundary was awarded by the Dominion to Manitoba in 1881 (see p. 24), but finally reverted to Ontario by award of the Privy Council in 1884, ratified by Imperial Act of Parliament in 1889.



extension of their own territory. (See Map 3 of insert facing p. 24.) But when, following the Treaty of Versailles in 1783, the United States of America was internationally recognized, the boundaries of the former English colonies along the Atlantic Coast were extended by the Treaty to include all this territory between the Ohio and the Mississippi Rivers.

The mainland boundary between Canada and the new United States, from east to west, as set forth in the Treaty, was: the St. Croix River to its source, thence due north to the Highlands, thence along the watershed, which divides the rivers that flow into the Atlantic from those that flow into the St. Lawrence, to the head of the Connecticut River; thence down that river to the 45th parallel of N. Latitude; due west along this line until it strikes the St. Lawrence; through Lakes Ontario, Erie, St. Clair, Huron, and across Superior northwest of the Isles Royale and Phelipeaux to Long Lake; thence through the connecting water-communication to Lake of the Woods; and from the northwest point thereof to the Mississippi River. This boundary was based in part upon boundaries of Nova Scotia and Quebec as previously defined, but, in spite of the fact that the best had been done under conditions existing at the time to define the boundary clearly, future disputes were inevitable, since the negotiators did not agree upon, nor attach to the Treaty, an official map.

Subsequent definitions of the eastern part of the boundary were made by several separately appointed commissions. The controversy was prolonged and at times bitter. In 1831, the King of the Netherlands, under Article V of the Treaty of Ghent (1814) which marked the close of the War of 1812, was appealed to as a disinterested outsider for an award. He recommended a "line of convenience" between the British and the United States claims which agreed fairly closely with the boundary of to-day. Still the Maine Boundary question remained unsettled until 1842 when the Ashburton Treaty was signed at Washington. Map 4, facing p. 24, shows the approximate position of the Maine Boundary as finally adjusted.

Nova Scotia in 1783 encompassed all that part of the mainland east of Chaleur Bay and the State of Maine, and included Cape Breton Island but not Prince Edward Island (St. John's Island, as it was then named) which had been separated politically from Nova Scotia since 1769.

In 1784, New Brunswick was established as a separate colony, the division from Nova Scotia being made from the Cumberland arm of the Bay of Fundy across the Chignecto Isthmus to Baie Verte, and Cape Breton Island was separated politically from Nova Scotia. The division of the "Province" of Quebec was next considered advisable from a standpoint of local government, since the conclusion of peace with the United States in 1783 had brought a great influx of "loyalists" to the territory between Lakes Erie, Ontario and Huron. The Constitutional Act of 1791 authorized this division. An Imperial Order in Council of the same year established the two districts of Upper Canada and Lower Canada, the boundary running from Lake St. Francis northward to the Ottawa River, which was followed to Lake Timiskaming, thence due north to the Hudson's Bay.\* However, the Canadas

\* The Order in Council, in reference to this line north of Lake Timiskaming, stated: "and from the head of the said lake (Timiskaming) by a line drawn due north until it strikes the boundary line of Hudson's Bay" [italics for emphasis only]. Later this sentence was interpreted to mean the shore of Hudson Bay (dotted extension on Map 4), but the late James White indicates in his article on the Ontario-Manitoba Boundary, *Canada and Its Provinces* (Vol. VIII, pp. 893-4), that this interpretation was a misconception and that the original intention was that the line should proceed due north to the boundary of the Hudson's Bay Company's territory.

were again united in 1840, to remain one until Confederation. The boundaries as understood in 1791 are shown on Map 4.

Developments between 1791 and Confederation were concerned mainly with the exploration of the west coast of North America and the extension of Canada northwards and westwards. These are dealt with under the appropriate headings below. One interesting historical adjustment that came about in 1809 is the reannexation to Newfoundland of the Labrador Coast which had passed to and from the Island and Quebec Province in 1763 and 1774 but now permanently remained with Newfoundland. (See Map 6, facing p. 24.)

**Exploration of the West Coast of North America.**—In 1728 Bering, a Danish explorer in the service of Russia, explored the northeast coast of Asia and the Bering Strait. In 1741 Bering and Chirikoff continued their explorations to the Alaska Coast and named Mount St. Elias. These voyages gave Russia title to the Alaskan shore as far south as latitude 55°N.—a title held until the sale of Alaska to the United States in 1867.

Captain James Cook took the initial step in British explorations of the northwest coast of North America by charting the coast between latitudes 45° and 65° N. in 1778. He made a landing and established himself at Nootka Sound. In 1790 his achievements became the basis of Britain's title to the northwest coast of America south of Alaska. The Nootka Convention of the same year (1790) put an end to all Spanish claims of supremacy on the Pacific Coast of what is now Canada. In 1792 Captain Vancouver carried on the work of Cook by more carefully exploring the Pacific Coast north of the 39th latitude and particularly the waters between the mainland and Vancouver Island, proving that the latter was indeed an island.

Alexander I of Russia issued a ukase in 1821 granting rights of "commerce, whaling and fishery, and of all other industry" on the North American Coast between Bering Strait and latitude 51°N. to Russian subjects exclusively and prohibiting foreigners from approaching the coast within 100 miles. Protests were lodged by both Great Britain and the United States and the right of Russia to forbid navigation within 100 miles of the coast was stoutly denied, but, whereas the United States denied *in toto* the Russian claim south of latitude 55°N. and even felt that she, herself, had some claim to the coast as high as 61° by virtue of the Treaty of Florida Blanca, 1819 (whereby Spain ceded to the United States all her rights and claims north of latitude 42°N.), Great Britain, by right of priority of discovery and the forts established by the North West Company and the Hudson's Bay Company, claimed the coast to approximately 58°N. latitude. Moreover, south of the Columbia, the "Oregon Country" was about that very time a matter of dispute between Great Britain and the United States. Great Britain refused to accept latitude 49°N. as her southern boundary with that country.

Negotiations with Russia were carried on separately by the United States and Great Britain and, finally, treaties were signed by these countries in 1824 and 1825. The treaty between Russia and Great Britain (1825) defined the line of demarcation between Russian and British territory as commencing from the southernmost part of Prince of Wales Island eastward to the Portland Canal and up the Canal to the 56th parallel of north latitude,



thence along the summits of the mountains paralleling the coast as far as 141°W. longitude, and along that meridian to the Arctic Ocean. The southern boundary between British territory and the United States remained in dispute until 1846, when the 49th parallel of north latitude was followed to the coast, but the whole of Vancouver Island went to Great Britain. Vancouver Island was made a colony in 1849. In 1858 the mainland extending north from the International Boundary to the Skeena and Finlay Rivers and east to the Rockies passed from the Hudson's Bay Company to the Crown as a separate colony. (See Map 6, facing p. 24.)

Meanwhile, in 1866, the union of the colony of Vancouver Island with British Columbia took place and the northern boundary of British Columbia was extended to the 60th parallel of latitude.

**Extension Northwards and Westwards of the Eastern Settlements.**—In the intervening years between 1792 and Confederation, there was a continued and steady westward and northward extension of the boundaries of British North America. In 1821 the Hudson's Bay Company and the aggressive North West Company (the latter Company had explored and exploited the Pacific and Arctic watersheds) joined resources under the name of the older Company. Their leases now extended from Rupert's Land to Russian America and the Pacific Coast.

*The Selkirk Grant.*—In the heart of the continent, Lord Selkirk had been granted 116,000 square miles of territory, by the Hudson's Bay Company in 1811. The area comprised the Red River Valley, one of the most fertile districts in North America, and the purpose of the grant was for settlement. After many trials and in the face of much opposition, the settlement finally prospered but not until after the founder's death. When, in 1818, the International Boundary to the Rockies was the subject of a convention between the United States\* and Great Britain, the southern part of the Selkirk Grant was absorbed into the Dakotas and Minnesota. Nevertheless, it was the fact of this established settlement and the vested interests of the settlers that played a large part in safeguarding the ideal of a British transcontinental dominion. The establishment of the central part of the settlement as the Province of Manitoba—a part of the Dominion within the British connection—was finally arranged but this did not take place until 1870, after the Hudson's Bay Company had surrendered to the Crown all territorial rights in the Northwest (1869).

**The Growth of Canada after Confederation.**—Confederation in 1867 brought about immediate union among the four Provinces of Ontario, Quebec, New Brunswick and Nova Scotia. (See Map 5, facing p. 24.)

Representatives from Newfoundland were present at the conference held at Quebec in 1864, when the constitutional foundations of the new nation were laid though Newfoundland did not, at that time, enter the union. The door for her later entry was, however, left open.

In 1870, Manitoba, which had just been organized as a province (see above) entered Confederation and was followed by British Columbia in 1871 and Prince Edward Island in 1873. Map 6, facing p. 24, shows the

\* In 1803 the United States had purchased the Louisiana Territory from France which in turn had secured it from Spain by secret treaty in 1800.

Dominion of Canada at this time-(1873), the northern boundaries of Ontario and Quebec being those generally understood at Confederation, although later the Province of Ontario made good its claim to the northward as far as James Bay and, in 1898, the northern boundary of Quebec was determined as the East Main River-Labrador line shown on Map 8. British rights to the Arctic Islands were handed over to the Dominion of Canada in 1880.

The western boundary of Manitoba was extended to the 100th meridian of longitude by Dominion Act of 1877. Between 1873 and 1889 much confusion existed between the boundaries of Ontario and Manitoba (see footnote at p. 21 for the origin of this dispute). In 1878, the Ontario Boundary question was referred to arbitration. The award of the arbiters set the northern boundary as the Albany and English Rivers and extended the western boundary to the longitude of the northwest angle of the Lake of the Woods.

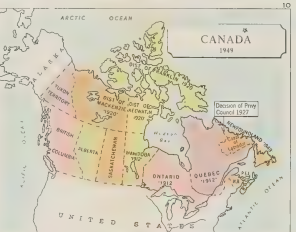
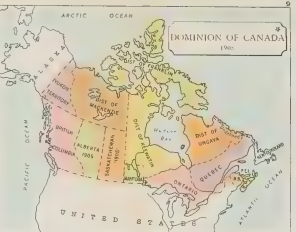
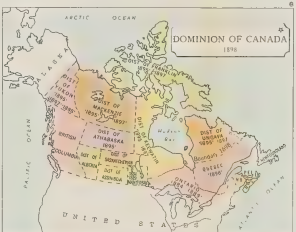
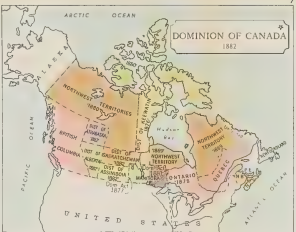
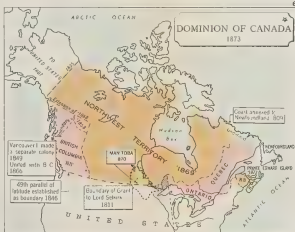
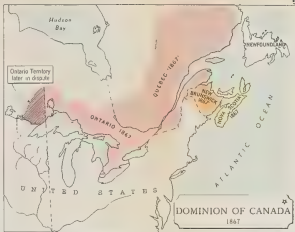
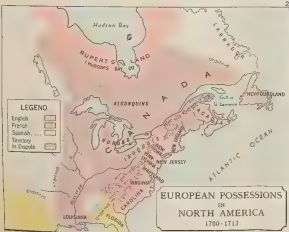
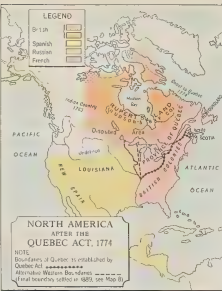
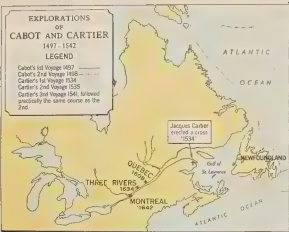
A change of government in the Dominion prevented the passage of legislation implementing the decision. In 1881, however, the boundary of Manitoba was set by Dominion Act to about the 53rd parallel of latitude on the north, and to the extension of the "Due North Line" from the confluence of the Ohio and the Mississippi Rivers on the east, which was the western boundary of Ontario according to the contention of the Dominion Government. The Ontario-Manitoba boundary question was finally decided in 1884 by the Imperial Privy Council, which confirmed the arbitration award of 1878. The eastern boundary of Manitoba therefore was now definitely fixed and fell along the extension of the due north line from the source of the Mississippi (not the confluence of the Ohio and Mississippi). An Imperial Act of Parliament, passed in 1889, confirmed this decision.

The Northwest Territories were now becoming politically organized. In 1876 the Provisional District of Keewatin was carved out north of Manitoba to the Arctic Ocean with the west coast of Hudson Bay as its eastern boundary. In 1882 the Districts of Saskatchewan, Assiniboia, Alberta and Athabaska were created. All these boundary decisions are shown in Map 7.

Between 1895 and 1897 what remained of the unorganized Northwest Territories was subdivided into the Administrative Districts of Mackenzie, Ungava and Franklin, and the District of Keewatin was enlarged to take in that portion of the Northwest Territories due north of Ontario. These Districts were not politically independent but were subordinate parts of the Northwest Territories. Yukon, where an important gold-mining industry was rapidly growing, was created a District by Order in Council in 1895. Yukon District became a Territory in 1898. See Map 8.

*The Establishment of the Alaska-British Columbia-Yukon Boundaries.*—Russia sold her American possessions to the United States in 1867, after which an effort was made by Great Britain to have a joint survey made of the boundary demarcating the line between Alaska, British Columbia and Yukon. A survey to the 141st meridian of west longitude was carried out under the Boundary Survey Conventions of 1892 and 1895, prior to a boundary settlement, by two commissioners, one representing Great Britain and one representing the United States. The demarcation of the 141st meridian was provided for in 1897, but the actual boundary had still to be officially agreed upon. In the meantime, the discovery of gold in the valley of the Klondike River in 1896 had emphasized the importance of the Chilkoot and





The dates within the Provinces, Territories or Districts indicate the year of their creation as integral parts of the Dominion or the year of boundary adjustment or determination when made subsequent to incorporation into the Dominion.





White Passes, at the head of the Lynn Canal, as gateways to Upper Yukon. Miners in tens of thousands were entering the gold fields and, since Canada claimed the territory at the head of the Lynn Canal while United States revenue officers ruled that their regulations forbade the landing of British vessels anywhere on the shores of that inlet, much friction ensued. By agreement, Dyea and Skagway were made sub-ports of entry but the importance of finally defining the boundary, especially in this area, was recognized. In 1898 and 1899 outstanding differences were referred to a Joint High Commission, but the Commission separated without settling the points at issue. Later, in October, 1899, a provisional boundary was fixed at the summits of the Chilkoot and White Passes and the Chilkat River at its junction with the Klehini River. Under the Alaska Boundary Convention (1903) reference of points in dispute was again made to a tribunal of "six impartial jurists of repute", three to be appointed by the British Government and three by the United States Government. The most acute differences of opinion centred in the area at the head of the Lynn Canal and in the Portland Canal section. The final award of 1903 was a compromise of the positions taken by the two Governments. In the important Lynn Canal area, the United States secured an adjustment of the provisional line. The final line crossed the Chilkat River about twenty miles further upstream from the Klehini River. In the Portland Canal section the final line was drawn down the centre of the Canal but at its mouth Wales and Pearce Islands went to Great Britain and Sitklan and Kannaughnut Islands to the United States.

The year 1905 marked the rise of Alberta and Saskatchewan to provincial status, embracing the former Districts of Athabaska, Alberta, Saskatchewan and Assiniboia from the Northwest Territories. In 1912 the boundaries of Manitoba and Ontario were extended to their present positions and Quebec absorbed the remainder of Ungava. In 1927, the boundary between the Dominion of Canada and Labrador was finally settled by the Imperial Privy Council. It had formerly been maintained by Canada that Labrador was confined to a narrow strip along the Atlantic Coast, but Newfoundland, to which the area had been re-transferred from Quebec by the Labrador Act of 1809, claimed a much larger area. Certainly in 1809 Labrador included Anticosti, and some other smaller islands in the St. Lawrence, as well as the north shore of the Gulf west from Belle Isle Strait to the St. John River which enters the St. Lawrence opposite to the western tip of Anticosti Island. The Labrador Act of 1825, however, had re-annexed Anticosti, the Magdalen Islands and the north shore, from the St. John River to Anse Sablon, near the Strait of Belle Isle, to Lower Canada. The Privy Council now ruled that Labrador extended inland to the Atlantic Ocean-Hudson Bay and Strait watershed and the boundaries defined were those shown on Map 10.

In July, 1948, the people of Newfoundland, by majority vote in a national referendum, decided to enter the Canadian Confederation, and the Island, together with Coast of Labrador, whose boundaries had been definitely fixed by the Privy Council decision of 1927 as taking in the Atlantic watershed from Cape Chidley at the north to latitude 52°, became the tenth province of Canada on Mar. 31, 1949, thus fulfilling, after 82 years, the dream of the Fathers of Confederation when they met at Quebec in 1864.



*The Bow River Valley, Alta., representative of the massive snow-crowned mountains, beautiful valleys with their sparkling lakes and rivers, and primeval forests of the great Cordilleran region bordering Canada's western coast.*

# Canada—The Country

## ★ *Physical Features*

CANADA comprises the whole northern part of the North American Continent with its islands, except the United States territory of Alaska. Extending from the Atlantic to the Pacific and from the United States Boundary to the North Pole, it has an area of 3,845,144 square miles, which may be compared with an area of 3,608,787 square miles for the United States and Alaska. The Canada-United States Boundary is 3,986·8 miles long and that between Canada and Alaska 1,539·8 miles.

The fresh-water area of the country is unusually large, constituting over 6 p.c. of the total: its character and disposition—for there are literally thousands of lakes, large and small, that provide storage basins for the regulation and control of stream flow—account for Canada's favourable place among nations in water-power resources. The Great Lakes, with the St. Lawrence River, form the most important system of waterways on the continent and one of the world's notable fresh-water transportation routes, providing ship transportation from the sea into the very heart of the continent. From the Strait of Belle Isle at the northern entrance to the Gulf of St. Lawrence, the sailing distance to the head of Lake Superior is 2,338 miles. The Great Lakes, through which the International Boundary passes, have a combined area of 95,170 square miles, and in addition to these there are twelve large lakes over 1,000 square miles in area and countless smaller lakes scattered all over that portion of Canada lying within the Canadian Shield: in an area of 6,094 square miles, accurately mapped, just south and east of Lake Winnipeg, there are 3,000 lakes.

The physical features of Canada fall naturally into six divisions. The Appalachian Region, including that part of the country lying south and east of the St. Lawrence River—the Maritimes (including the Island of Newfoundland) and part of Quebec—is for the most part mountainous or hilly. The Appalachian Mountains of the eastern United States, continuing up through southeastern Quebec, reach heights up to 4,160 feet. To the east the elevations are lower. It is a beautiful country of diversified character, heavily wooded in sections and with areas of good farm lands.

The valley of the St. Lawrence River and the peninsula of Ontario formed by the Great Lakes, a region about 35,000 square miles in extent, is rich in resources of forests, minerals, water powers and agriculture. Its moderate climate, fertile soil and excellent transportation facilities have combined to make this region an area of great economic importance. Within this area is the greatest concentration of population and industry in the country.

That vast area lying west and north of the St. Lawrence Lowlands, including the remainder of Quebec and Ontario and running westward to Lake Winnipeg and northward across Saskatchewan and the Northwest Territories to the shores of the Arctic Ocean, is known as the Canadian Shield. It is over 2,000,000 square miles in extent and is an area of low,



hummocky hills and ridges separated by depressions occupied by lakes or muskegs. Lakes of all sizes and shapes and containing numerous islands dot practically the entire area, and the rivers are often mere successions of lake expansions connected by stretches in which rapids and waterfalls are numerous. This area, Canada's great storehouse of mineral wealth, is rich in forest, fur and water-power resources.

To the west of the Canadian Shield lie the Interior Plains, part of the great plains regions in the interior of the continent stretching from the Gulf of Mexico to the Arctic Ocean. This is Canada's great wheat-producing area. To the west again and running parallel to the Pacific coast is the Cordilleran Mountain System, the predominant orographical feature of Canada. Throughout Canada this mountain system, which extends up from the south and continues on into Alaska, has a width of 400 miles and covers 530,000 square miles in area. Many of the summits reach 10,000 feet and occasional peaks 13,000 feet above sea-level. It is an area of unsurpassed grandeur, rich in mineral and forest resources. To the south are many broad fertile valleys well suited to the growing of fruit and the production of other agricultural products.

The sixth division includes the islands of the Arctic lying north of the Canadian Shield and a low-lying area on the west side of Hudson Bay.

Thus Canada, in its vast extent, contains a great diversity of physical features and almost limitless natural resources which as yet are, for the most part, in the early stages of development.

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*Rolling farmlands and tree-clad hills near La Malbaie, Que.*





## ★ *The Climate*

The climate of Canada is dominated by the general movement of the atmosphere from west and northwest. During the winter season cold, dry air from the polar regions moves eastward and southward across the prairies and Eastern Canada to the Atlantic. Usually these cold airmasses are considerably modified by the time they reach the Great Lakes and Eastern Provinces. In winter, air moving northward from the Gulf of Mexico exerts considerable effect on the climate of southeastern Canada, while in summer air from the same source furnishes rainfall to the prairies. Airmasses from over the north Pacific Ocean enter British Columbia but lose much of their water-content while passing eastward over the mountains. As this air moves eastward, it produces mild to hot weather according to season.

Vancouver Island and the coast of the mainland of British Columbia enjoy the mildest winters to be found anywhere in Canada, while summers are long and moderately warm. Although only a small portion of the winter precipitation is in the form of snow, autumn and winter constitute the wet season in this area. In contrast to the western slopes of the Coast Range, the southern interior valleys of British Columbia receive only light precipitation. Both summer and winter temperatures in the interior are more extreme than those experienced along the coast.



The severity of the winters varies greatly in the Prairie Provinces from year to year, depending upon the source-region and path of the dominant airmasses. In some winters outbreaks of cold air from the Arctic may pass quickly to the southeast and be replaced by much milder air from the west or southwest, while in other winters a cold spell may last for several weeks with only slight relief. The 'chinook' is one of the most striking features of the winter weather of the region. This spectacular phenomenon of sudden change from bitter cold to comparative warmth is most pronounced in southern Alberta. Daytime temperatures during the summer months are quite high, exceeding 100°F. on occasions during heat waves. However, the nights are generally quite cool throughout the summer. Only a limited portion of the southern prairies has an average frost-free period of 100 days or more. Although the rainfall over the prairies is relatively light, fortunately most of it occurs during the months May to August when it is required by the growing crops.

Winters are cold throughout northwestern Ontario and summers are moderately warm. However, even in summer, radiation from the rocky hills and ridges on clear nights presents a danger of frost. The length of the period continuously free from frost varies considerably with the topography but in general the region is not eminently suitable for agriculture. During winters with few mild spells, a considerable depth of snow accumulates.

The Lower Lakes region is traversed alternately by warm and cold airmasses. These alternations occur on the average about every three days with precipitation occurring at the margins of the moving airmasses. In southern Ontario precipitation is distributed fairly evenly throughout the year. Even in the winter rain falls in most months. Summers are warm but oppressively hot days with high relative humidity are infrequent.

Southwestern Quebec enjoys a climate quite similar to that of southern Ontario except that the moderating influence of the Great Lakes is absent. The winters are colder, the summers are slightly warmer, and the frost-free season is shorter. Farther down the St. Lawrence River both summer and winter temperatures are lower than in the upper St. Lawrence valley. Northward from the St. Lawrence River winter temperatures become quite severe. During winter cold waves, minimum temperatures occasionally fall to -50°F. or lower in the Laurentian Hills and in far northern Quebec. Precipitation is ample throughout the whole region.

The climate of New Brunswick, Nova Scotia, and Prince Edward Island, is continental rather than maritime. Summers are warm with maximum temperatures rising to 90° or 95°F. at times. Snowfall is heaviest in northern New Brunswick. In Nova Scotia the heaviest precipitation occurs along the Atlantic Coast and is usually part rain even in winter. In Nova Scotia the maximum incidence of fogs is from June to August.

In the interior of Newfoundland the winters are cold, the temperature falling at times to -20° or -25°F.; along the coast winters are more moderate. Spring is late, summers are short and fogs are frequent.

The summers of the Yukon and Mackenzie Territories are characterized by considerably higher temperatures than those experienced in Baffin Island and in the eastern Arctic. Winter temperatures are bitterly cold throughout the entire region. At Snag in Yukon Territory an extreme minimum temperature of -81°F. has been recorded. Both rainfall and snowfall are light throughout all Northern Canada.



Long-Term Temperatures and Precipitation Data for 35 Representative Localities in Canada

| Locality                   | Height Above Sea | Length of Record | TEMPERATURES (Fahrenheit) |       |      |                   | Heating Factor | Killing Frost Average Dates |                                 | PRECIPITATION (inches) |                 |              |             |      |      |      |      |                     |         |
|----------------------------|------------------|------------------|---------------------------|-------|------|-------------------|----------------|-----------------------------|---------------------------------|------------------------|-----------------|--------------|-------------|------|------|------|------|---------------------|---------|
|                            |                  |                  | Annual                    | Jan.  | July | Highest on Record |                | Lowest on Record            | Annual Day-Degrees <sup>1</sup> | Last in Spring         | First in Autumn | Annual Total | Annual Snow | Jan. | Apr. | July | Oct. | Number of Days Rain | Precip. |
|                            |                  |                  |                           |       |      |                   |                |                             |                                 |                        |                 |              |             |      |      |      |      |                     |         |
| Gander, Nfld.....          | 482              | 11 yrs.          | 39.3                      | 19.2  | 62.3 | 91                | -15            | 9,477                       | May 29                          | Oct. 2                 | 38.24           | 121.0        | 2.81        | 2.32 | 3.65 | 3.87 | 129  | 199                 |         |
| St. John's, Nfld.....      | 296              | 67               | 40.9                      | 23.5  | 59.6 | 93                | -21            | 8,876                       | June 2                          | Oct. 10                | 53.78           | 101.1        | 5.31        | 4.16 | 3.54 | 5.27 | 147  | 208                 |         |
| Charlottetown, P.E.I.....  | 186              | 65               | 41.7                      | 17.8  | 65.6 | 98                | -27            | 8,679                       | May 13                          | Oct. 22                | 39.47           | 113.0        | 3.76        | 2.78 | 2.98 | 4.07 | 119  | 162                 |         |
| Annapolis Royal, N.S.....  | 30               | 25               | 44.4                      | 24.4  | 64.4 | 89                | -13            | 7,945                       | May 20                          | Oct. 6                 | 41.41           | 74.8         | 4.20        | 2.77 | 3.40 | 4.19 | 115  | 140                 |         |
| Halifax, N.S.....          | 83               | 75               | 44.0                      | 23.6  | 64.7 | 99                | -21            | 7,748                       | May 11                          | Oct. 13                | 55.74           | 70.8         | 5.40        | 4.54 | 3.79 | 5.42 | 130  | 156                 |         |
| Sydney, N.S.....           | 197              | 69               | 42.3                      | 22.1  | 63.6 | 98                | -25            | 8,392                       | May 29                          | Oct. 13                | 50.24           | 97.9         | 5.16        | 4.03 | 3.37 | 4.70 | 127  | 165                 |         |
| Chatham, N.B.....          | 112              | 50               | 40.2                      | 12.2  | 66.6 | 102               | -43            | 9,272                       | May 19                          | Sept. 29               | 40.74           | 107.3        | 3.38        | 3.02 | 3.91 | 3.97 | 107  | 151                 |         |
| Fredericton, N.B.....      | 164              | 67               | 40.7                      | 13.5  | 66.1 | 101               | -35            | 9,105                       | May 20                          | Sept. 24               | 42.80           | 95.5         | 3.87        | 2.94 | 3.53 | 4.11 | 108  | 149                 |         |
| Saint John, N.B.....       | 119              | 56               | 41.4                      | 19.3  | 61.0 | 93                | -21            | 8,587                       | May 4                           | Oct. 16                | 42.26           | 71.1         | 4.28        | 3.22 | 3.03 | 4.01 | 134  | 168                 |         |
| Arvida, Que.....           | 335              | 10               | 36.4                      | 3.6   | 65.0 | 95                | -42            | 10,780                      | May 19                          | Sept. 19               | 38.93           | 116.1        | 2.90        | 2.53 | 4.81 | 3.53 | 112  | 176                 |         |
| Fort McKenzie, Que.....    | 250              | 9                | 22.4                      | -12.5 | 54.2 | 91                | -60            | 15,695                      | July 8                          | Sept. 26               | 22.04           | 82.4         | 1.24        | 1.02 | 3.67 | 1.77 | 77   | 167                 |         |
| Lennoxville, Que.....      | 498              | 24               | 40.3                      | 12.8  | 66.2 | 99                | -48            | 9,130                       | May 28                          | Sept. 17               | 40.80           | 89.4         | 3.46        | 2.60 | 4.12 | 3.63 | 104  | 150                 |         |
| Montreal, Que.....         | 187              | 55               | 42.8                      | 13.8  | 69.8 | 97                | -29            | 8,644                       | Apr. 28                         | Oct. 17                | 40.80           | 112.3        | 3.76        | 2.60 | 3.74 | 3.42 | 112  | 164                 |         |
| Kapuskasing, Ont.....      | 752              | 19               | 32.4                      | -1.7  | 62.4 | 101               | -53            | 11,913                      | June 14                         | Sept. 7                | 27.59           | 91.0         | 2.00        | 1.82 | 3.43 | 2.93 | 95   | 182                 |         |
| Ottawa, Ont.....           | 260              | 65               | 41.5                      | 11.9  | 69.6 | 102               | -35            | 8,915                       | May 7                           | Oct. 2                 | 34.23           | 82.0         | 2.93        | 2.70 | 3.39 | 2.93 | 98   | 139                 |         |
| Port Arthur, Ont.....      | 644              | 62               | 36.2                      | 6.7   | 63.0 | 104               | -40            | 10,632                      | May 26                          | Sept. 20               | 23.66           | 42.9         | 0.91        | 1.49 | 3.56 | 2.45 | 78   | 129                 |         |
| St. Catharines, Ont.....   | 347              | 21               | 47.8                      | 26.0  | 71.1 | 104               | -12            | 6,718                       | May 7                           | Oct. 20                | 27.03           | 37.7         | 2.30        | 2.39 | 2.39 | 2.18 | 99   | 132                 |         |
| Toronto, Ont.....          | 379              | 105              | 45.1                      | 22.6  | 68.9 | 105               | -26            | 7,373                       | May 2                           | Oct. 14                | 32.18           | 61.9         | 2.71        | 2.48 | 2.35 | 2.43 | 109  | 145                 |         |
| Churchill, Man.....        | 115              | 30               | 17.8                      | -19.0 | 53.7 | 96                | -57            | 17,052                      | June 28                         | Aug. 26                | 15.96           | 56.9         | 0.48        | 0.89 | 2.19 | 1.43 | 52   | 101                 |         |
| The Pas, Man.....          | 890              | 27               | 30.6                      | -8.7  | 64.6 | 100               | -54            | 12,592                      | May 30                          | Sept. 7                | 15.44           | 44.9         | 0.61        | 0.81 | 2.22 | 1.16 | 59   | 102                 |         |
| Winnipeg, Man.....         | 790              | 66               | 35.0                      | -3.1  | 66.9 | 108               | -54            | 11,146                      | May 27                          | Sept. 14               | 21.19           | 53.6         | 0.92        | 1.37 | 3.08 | 1.49 | 67   | 118                 |         |
| Prince Albert, Sask.....   | 1,414            | 54               | 32.9                      | -4.3  | 63.4 | 103               | -70            | 11,620                      | May 30                          | Sept. 10               | 16.11           | 51.5         | 0.74        | 0.93 | 2.18 | 0.84 | 62   | 116                 |         |
| Regina, Sask.....          | 1,884            | 55               | 34.5                      | -0.7  | 64.8 | 111               | -56            | 11,259                      | June 6                          | Sept. 10               | 14.70           | 28.8         | 0.51        | 0.74 | 2.38 | 0.86 | 59   | 109                 |         |
| Beaverlodge, Alta.....     | 2,484            | 31               | 35.3                      | 5.6   | 59.8 | 98                | -54            | 11,250                      | June 4                          | Sept. 4                | 17.19           | 70.1         | 1.27        | 0.78 | 2.21 | 1.11 | 76   | 127                 |         |
| Calgary, Alta.....         | 3,540            | 55               | 38.4                      | 13.1  | 61.5 | 97                | -49            | 9,494                       | June 1                          | Sept. 6                | 16.65           | 50.0         | 0.51        | 0.99 | 2.51 | 0.69 | 57   | 101                 |         |
| Edmonton, Alta.....        | 2,219            | 56               | 36.6                      | 5.9   | 61.6 | 99                | -57            | 10,356                      | May 30                          | Sept. 6                | 17.38           | 46.4         | 0.88        | 0.88 | 3.32 | 0.75 | 73   | 133                 |         |
| Medicine Hat, Alta.....    | 2,365            | 55               | 41.9                      | 12.0  | 69.3 | 108               | -51            | 8,880                       | May 12                          | Sept. 19               | 12.81           | 35.6         | 0.63        | 0.77 | 1.68 | 0.62 | 56   | 100                 |         |
| Cranbrook, B.C.....        | 3,014            | 35               | 40.7                      | 16.7  | 63.2 | 102               | -41            | 8,985                       | June 10                         | Aug. 28                | 14.41           | 56.7         | 1.80        | 0.68 | 1.14 | 0.89 | 69   | 106                 |         |
| Nelson, B.C.....           | 2,235            | 39               | 45.2                      | 24.4  | 66.4 | 103               | -17            | 7,445                       | June 13                         | Sept. 30               | 27.77           | 89.3         | 3.47        | 1.57 | 1.62 | 2.35 | 102  | 131                 |         |
| Penticton, B.C.....        | 1,121            | 32               | 47.8                      | 26.8  | 68.3 | 105               | -12            | 6,548                       | May 7                           | Oct. 3                 | 10.85           | 24.0         | 0.98        | 0.68 | 0.79 | 0.83 | 83   | 102                 |         |
| Prince George, B.C.....    | 2,218            | 27               | 38.5                      | 12.9  | 59.6 | 102               | -57            | 9,772                       | June 18                         | Aug. 22                | 19.98           | 62.7         | 1.81        | 0.84 | 1.63 | 1.99 | 123  | 162                 |         |
| Victoria, B.C.....         | 228              | 54               | 49.5                      | 38.7  | 60.0 | 95                | -62            | 5,468                       | Mar. 18                         | Nov. 27                | 27.13           | 13.4         | 4.49        | 1.18 | 0.44 | 2.81 | 141  | 144                 |         |
| Dawson, Y.T.....           | 1,062            | 41               | 22.8                      | -21.0 | 59.6 | 91                | -68            | 15,580                      | June 19                         | Sept. 17               | 12.61           | 56.2         | 0.87        | 0.51 | 1.53 | 1.17 | 63   | 117                 |         |
| Coppermine, N.W.T.....     | 13               | 13               | 11.3                      | -18.9 | 50.1 | 87                | -54            | 19,710                      | June 25                         | Aug. 22                | 10.72           | 57.0         | 0.57        | 0.84 | 1.33 | 1.16 | 40   | 103                 |         |
| Fort Good Hope, N.W.T..... | 214              | 31               | 17.0                      | -23.6 | 59.3 | 95                | -79            | 17,520                      | June 15                         | Aug. 6                 | 10.63           | 50.0         | 0.53        | 0.49 | 1.55 | 1.09 | 46   | 106                 |         |

<sup>1</sup> Day-degrees represent the difference in temperature between the mean temperature of the air and the temperature of 65°F. multiplied by the number of days during which the outside temperature was lower than that figure. Fuel consumption for heating purposes will be proportional to these totals.

## ★ *National and Provincial Parks*

Federal and Provincial Governments have each set aside extensive areas of scenic beauty for the use of the people in perpetuity. These areas have been preserved in their natural state, the wildlife and other resources safeguarded, and they have been made accessible by highways and provided with accommodation and other facilities for the visitor. In addition to the rich attractions within their borders, the National and Provincial Parks serve as gateways to new and wonderful sections of wilderness beyond.

### *National Parks*

The National Parks are maintained in a manner designed to ensure that their benefits may be passed on to succeeding generations. The wilderness character and stimulating freshness of the great park areas are being retained, as far as possible, consistent with their functions as national playgrounds. Nearly 1,750,000 persons visited the parks in 1949, approximately 23 p.c. of whom came from the United States and countries abroad. Thus these areas rank high among Canada's major tourist attractions. Here Canadians meet, not as visitors from one province to another, but as joint owners of a great national estate. Here also they mingle with fellow vacationists from other lands in an atmosphere that is friendly and tranquil.

The National Parks Service of the Department of Mines and Resources administers the National Parks. The system comprises 26 separate units with a total area of more than 29,000 square miles. The National Parks Service is responsible for proper development and maintenance. By progressive stages the areas and their outstanding attractions have been made more easily accessible, facilities for recreation and accommodation have been expanded, wildlife is being scientifically managed, and broad measures taken for the effective protection of the flora, fauna and natural features. Modern conservation methods are applied in the parks by highly trained personnel, and constant vigilance is maintained in order to safeguard this priceless heritage for the use and enjoyment of present and future generations.

The National Parks Service is also entrusted with the restoration and marking of places of national historic importance and the commemoration of services rendered by distinguished Canadians. In addition to nine National Historic Parks which form part of the National Parks system, about 390 National Historic Sites in various parts of Canada have been marked or restored. There is a growing public interest in these historic places.

Following is a list of the National Parks and a brief description of each:  
PRINCE EDWARD ISLAND—

Coastal strip 25 miles long on the shores of the Gulf of St. Lawrence. Recreational area; fine bathing beaches. Accessible by highway. Hotel and bungalow cabin accommodation within and adjacent to park. Equipped camp-grounds. Established 1937; area, 7 square miles.

NOVA SCOTIA—

CAPE BRETON HIGHLANDS. Rugged Atlantic coast line with mountain background. Fine seascapes from park highway. Recreational opportunities. Hotel and bungalow cabin accommodation within park area. Hotel and boarding-house accommodation adjacent to park. Equipped camp-grounds. Established 1936; area, 390 square miles.

FORTRESS OF LOUISBOURG. National Historic Park with museum near Louisburg. Ruins of walled city erected by the French 1720-40. Interesting excavations. Established 1941; area, 340 acres.

PORT ROYAL. National Historic Park at Lower Granville. Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts, and Poutrincourt. Established 1941; area, 17 acres.

FORT ANNE. National Historic Park with museum at Annapolis Royal. Well-preserved earthworks. Established 1917; area, 31 acres.

#### NEW BRUNSWICK—

FORT BEAUSÉJOUR. National Historic Park with museum near Sackville. Site of early French fort. Established 1926; area, 81 acres.

FUNDY. Delightful recreational area under development on the Bay of Fundy between the cities of Saint John and Moncton. Forested region, wild-life sanctuary, rugged terrain. Equipped camp-grounds, heated salt-water swimming pool. Established 1948; area, approximately 80 square miles.

#### QUEBEC—

FORT CHAMPLY. National Historic Park with museum at Chambly. First built by the French, 1665. Established 1941; area, 2.5 acres.

FORT LENNOX. National Historic Park on Ile-aux-Noix in Richelieu River, near St. Johns. Built by the French in 1759. Established 1941; area, 210 acres.

#### ONTARIO—

ST. LAWRENCE ISLANDS. Mainland area and 13 islands among the "Thousand Islands". Recreational and camping area. Mainland accessible by highway; islands reached by boat from nearby mainland points. Established 1914; area, 189.4 acres.

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*Waskesiu Beach, Prince Albert National Park, Sask.*





**POINT PELEE.** Recreational area on Lake Erie. Remarkable beaches, southern flora. Resting place for migratory birds. Accessible by highway. Hotel and bungalow cabin accommodation in park area and vicinity. Equipped camp-grounds. Established 1918; area, 6.04 square miles.

**GEORGIAN BAY ISLANDS.** Recreational and camping areas. Accessible by boat from nearby mainland points. Equipped camp-grounds and annual youth camps on Beausoleil Island. Unique pillars on Flowerpot Island. Established 1929; area, 5.4 square miles.

**FORT MALDEN.** National Historic Park with museums at Amherstburg. Site of defence post built 1797-99. Established 1941; area, 5 acres.

**FORT WELLINGTON.** National Historic Park with museum at Prescott. Defence post built 1812-13. Established 1941; area, 8.5 acres.

## MANITOBA—

**RIDING MOUNTAIN.** Playground and wildlife sanctuary on summit of Manitoba escarpment. Fine lakes, summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1929; area, 1,148 square miles.

**FORT PRINCE OF WALES.** National Historic Park at Churchill on the shores of Hudson Bay. Ruins of Fort built 1733-71. Established 1941; area, 50 acres.

## SASKATCHEWAN—

**PRINCE ALBERT.** Forested region dotted with lakes and interlaced with streams. Summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1927; area, 1,496 square miles.

## ALBERTA—

**BANFF.** Magnificent scenic playground in the Rocky Mountains. Contains noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1885; area, 2,564 square miles.

**JASPER.** Mountain playground and noted wildlife sanctuary. Contains majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1907; area, 4,200 square miles.

**WATERTON LAKES.** Canadian section, Waterton-Glacier International Peace Park. Mountain playground with colourful peaks and charming lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1895; area, 204 square miles.

**ELK ISLAND.** Fenced preserve near Edmonton containing a large herd of buffalo; also deer, elk and moose. Popular recreational area; bungalow cabin accommodation and equipped camp-grounds. Accessible by highway. Established 1913; area, 75 square miles.

## BRITISH COLUMBIA—

**YOHO.** On west slopes of Rockies. Lofty peaks, magnificent waterfalls, colourful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1886; area, 507 square miles.

**KOOTENAY.** Encloses Vermilion-Sinclair section of the Banff-Windermere Highway in Rockies. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1920; area, 543 square miles.

**GLACIER.** Superb alpine region in Selkirk Mountains. Towering peaks, glaciers and forests. Accessible by railway only. Climbing, skiing, camping. Established 1886; area, 521 square miles.

**MOUNT REVELSTOKE.** Rolling mountain-top plateau on west slope of Selkirk Mountains. Colourful alpine meadows. Accessible by rail and highway. Summer accommodation in park. All-year accommodation in nearby town of Revelstoke. Equipped camp-grounds. Championship ski runs and ski jump. Established 1914; area, 100 square miles.

## NORTHWEST TERRITORIES AND ALBERTA—

**WOOD BUFFALO.** Immense region of forests and open plains between Athabaska and Great Slave Lakes. Home of largest remaining herd of bison on the continent. Other wildlife species abundant. Established 1922; area, 17,300 square miles.



*Sunwapta Falls, Jasper National Park, Alta.*

## *Provincial Parks*

Six of the ten provinces of Canada have established Provincial Parks. While in many cases they are undeveloped areas set aside in their natural state, some of the larger parks, especially in British Columbia, Quebec and Ontario, are highly developed and well served with hotels and other tourist accommodation and have organized recreational facilities. The total areas of provincial park land in the different provinces are as follows: British Columbia, 14,071 square miles; Quebec, 10,653 square miles; Ontario, 5,210 square miles; Saskatchewan, 1,685 square miles; Newfoundland, 42 square miles; and Alberta 13 square miles. The most important, in point of size (all over 1,000 square miles in area), are:—

**BRITISH COLUMBIA—**

Tweedsmuir  
Wells Grey  
Hamber

**SASKATCHEWAN—**

Lac La Ronge

**ONTARIO—**

Algonquin  
Quetico

**QUEBEC—**

Laurentides  
Mont-Laurier Senneterre  
Road Fish and Game Reserve  
Chibougamau Fish and Game  
Reserve  
Trembling Mountain

Detailed information regarding Provincial Parks may be obtained from the respective Provincial Governments.







# The People

## ★ *Population*

IN 1604, 79 whites and an unknown number of aborigines inhabited the area now known as Canada. The manner of growth to a total population of 13,549,000 in 1949 appears to have been decidedly cyclical, the peaks of growth coinciding with important points in history—the American Revolution, the Irish famine, the building of the railways, and the opening of the West. The two periods of maximum absolute increases in modern times were in the periods 1841 to 1861 and 1901 to 1911.

When the first census was taken in 1666, 62 years after the first settlers had been left at Ile Ste. Croix, there were 3,215 inhabitants, exclusive of aborigines. At the end of the seventeenth century the white population was approximately 17,000 and the actual increase was fairly constant for the next 70 years. In the decade of the American Revolution the number increased from 105,000 in 1771 to 150,000 in 1781. The coming of the United Empire Loyalists and their settlement in the Eastern Townships and along the upper St. Lawrence, Lake Ontario and the Niagara Peninsula in the last quarter of the eighteenth century, opened up new areas and Canada began the nineteenth century with a white population of 362,000. The million mark was passed in 1831 and the period of the Irish famine brought the total to 2,300,000. When the first Dominion census was taken in 1871 Canada had a total population of 3,689,257. Since that date there has been a continuous measure of population growth by means of the decennial censuses and, beginning with 1906, of the quinquennial censuses of the Prairie Provinces.

But it was within the first decade of the present century that the most spectacular expansion of the population of Canada took place. The outstanding feature was, of course, the opening of the West to settlement. The unorganized southern stretch of the Northwest Territories, ceded to the Dominion by the Hudson's Bay Company soon after Confederation, had been traversed by the Canadian Pacific Railway between 1875 and 1885. But, though the western population had roughly doubled in each of the decades ended 1881, 1891 and 1901, it was only with the discovery of the wheat-growing potentialities of the prairies and the launching of a large-scale immigration movement after 1900 that western settlement became a factor of first importance. In the period 1901-11 immigration exceeded 1,800,000 and, though at least a third of these were lost to Canada, it formed the chief factor in the gain of 34 p.c. which the total population registered in that period and which was larger than the relative growth of any other modern country during the same period. The movement was continued in the first three years of the second decade after which a recession set in.

After the First World War immigration never again reached anything like its former levels and during the depression years of the 1930's it was still

further restricted by Government regulations as well as by economic necessity. The population increase in the period 1921-31 amounted to 18.1 p.c. and in the decade 1931-41 to 10.9 p.c. Between 1931 and 1941 and even to some extent in the previous ten years, the trend of movement of population was from the Prairie Provinces to Ontario and to British Columbia, the percentage increase for British Columbia in these two decades being higher than for any other province. Annual estimates since 1941 show the increase for Canada as a whole to be roughly 100,000 to 300,000 a year.

The drift to the cities and towns in Canada has been strikingly apparent since shortly after the middle of the nineteenth century, a trend characteristic of virtually all western nations. The movement has been brought about largely by the expansion of manufacturing and service industries and by improved transportation and communication facilities. In 1871, 19.6 p.c. of the population dwelt in urban centres, in 1901 the proportion had risen to 37.5 p.c. and to 49.5 p.c. in 1921. In 1941 it was 54.3 p.c. The attraction of industry for labour during and after the Second World War has accentuated the trend in more recent years.

The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although recently this condition has been greatly modified, especially after the rigid control of immigration following the First World War. From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c., the excess of males being more marked in the newer sections of the country. The 1941 Census showed more females in urban centres than males; of every 1,000 urban dwellers 508 were females.

In recent years a more pronounced general ageing of the population has become evident owing to the coincident cessation of immigration and a lower birth rate. In 1921 some 18.3 p.c. of the total population was from 40 to 59 years of age; the proportion grew to 20.1 p.c. in 1931 and to 21.0 p.c. in 1941. Persons 60 years or over represented 7.5 p.c. of the total population in 1921, 8.4 p.c. in 1931 and 10.2 p.c. in 1941.

The Canadian population is made up of diverse races moulding themselves into a nation that takes its pattern from the land of their adoption. At the time of Confederation the largest individual British racial group was Irish, the Irish and Scottish together outnumbering the English by almost two to one. After 1881 the English predominated with Scottish in second place. At the time of the 1941 Census the numerical strength of the principal racial stocks was in the following order: French, English, Scottish, Irish, German, Ukrainian, Scandinavian, Netherland, Jewish and Polish.

In Canada, English and French are the official languages. The 1941 Census revealed 1,474,009 people speaking both, while 7,735,486 spoke English only and 2,181,746 spoke French only.

### *Population Statistics*

The following tables analyse, as at the 1941 Census, the Canadian population from various angles. In the space available in this publication, the subject of population can be dealt with only very summarily. The 1941 Census does not reflect current conditions in post-war Canada and the official estimates of the population for 1942-49 are given at p. 43.

Yonge Street, Toronto. The subway now under construction is designed to relieve the traffic on this thoroughfare.



### Population of Canada, Census Years 1891-1941 with Density, 1941

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census reports.

| Province or Territory | Population |           |           |                        |            |            | Land Area in Sq. Miles | Persons per Sq. Mile 1941 |
|-----------------------|------------|-----------|-----------|------------------------|------------|------------|------------------------|---------------------------|
|                       | 1891       | 1901      | 1911      | 1921                   | 1931       | 1941       |                        |                           |
| P.E.I....             | 109,078    | 103,259   | 93,728    | 88,615                 | 88,038     | 95,047     | 2,184                  | 43.52                     |
| N.S.....              | 450,396    | 459,574   | 492,338   | 523,837                | 512,846    | 577,962    | 20,743                 | 27.86                     |
| N.B.....              | 321,263    | 331,120   | 351,889   | 387,876                | 408,219    | 457,401    | 27,473                 | 16.65                     |
| Que.....              | 1,488,535  | 1,648,898 | 2,005,776 | 2,360,510              | 2,874,662  | 3,331,882  | 523,860                | 6.36                      |
| Ont.....              | 2,114,321  | 2,182,947 | 2,527,292 | 2,933,662              | 3,431,683  | 3,787,655  | 363,282                | 10.43                     |
| Man.....              | 152,506    | 255,211   | 461,394   | 610,118                | 700,139    | 729,744    | 219,723                | 3.32                      |
| Sask.....             | ...        | 91,279    | 492,432   | 757,510                | 921,785    | 895,992    | 237,975                | 3.77                      |
| Alta.....             | ...        | 73,022    | 374,295   | 588,454                | 731,605    | 796,169    | 248,800                | 3.20                      |
| B.C.....              | 98,173     | 178,657   | 392,480   | 524,582                | 694,263    | 817,861    | 359,279                | 2.28                      |
| Yukon...              | ...        | 27,219    | 8,512     | 4,157                  | 4,230      | 4,914      | 205,346                | 0.02                      |
| N.W.T...              | 98,967     | 20,129    | 6,507     | 8,143                  | 9,316      | 12,028     | 1,253,438              | 0.01                      |
| Canada.               | 4,833,239  | 5,371,315 | 7,206,643 | 8,787,949 <sup>1</sup> | 10,376,786 | 11,506,655 | 3,462,103              | 3.32                      |

<sup>1</sup> Includes 485 members of the Royal Canadian Navy, who were recorded separately.



# Rural Farm, Rural Non-Farm and Urban Population, by Provinces, 1931 and 1941

| Province or Territory | 1931             |                  |                  | 1941             |                  |                  |
|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                       | Rural            |                  | Urban            | Rural            |                  | Urban            |
|                       | Farm             | Non-Farm         |                  | Farm             | Non-Farm         |                  |
| P.E.I.....            | 54,963           | 12,690           | 20,385           | 50,732           | 19,975           | 24,340           |
| N.S.....              | 173,965          | 107,227          | 231,654          | 141,182          | 169,240          | 267,540          |
| N.B.....              | 178,494          | 100,785          | 128,940          | 163,067          | 150,911          | 143,423          |
| Que.....              | 743,598          | 317,458          | 1,813,606        | 823,791          | 398,407          | 2,109,684        |
| Ont.....              | 785,550          | 550,141          | 2,095,992        | 694,684          | 754,338          | 2,338,633        |
| Man.....              | 254,302          | 129,868          | 315,969          | 248,684          | 159,187          | 321,873          |
| Sask.....             | 561,407          | 69,473           | 290,905          | 513,279          | 87,567           | 295,146          |
| Alta.....             | 370,899          | 82,198           | 278,508          | 380,693          | 108,890          | 306,586          |
| B.C.....              | 100,244          | 199,280          | 394,739          | 100,810          | 273,657          | 443,394          |
| Yukon.....            | 74               | 2,796            | 1,360            | 42               | 3,075            | 1,797            |
| N.W.T.....            | —                | 9,316            | —                | —                | 12,028           | —                |
| <b>Canada.....</b>    | <b>3,223,496</b> | <b>1,581,232</b> | <b>5,572,058</b> | <b>3,116,964</b> | <b>2,137,275</b> | <b>6,252,416</b> |

## Urban Centres having over 30,000 Inhabitants, 1931 and 1941

NOTE.—Populations for 1931 are those residing in the incorporated areas as of 1941.

| Urban Centre and Province     | 1931      | 1941    | Urban Centre and Province | 1931   | 1941   |
|-------------------------------|-----------|---------|---------------------------|--------|--------|
| Montreal, Que.....            | 818,577   | 903,007 | Halifax, N.S.....         | 59,275 | 70,488 |
| Greater Montreal... 1,023,158 | 1,139,921 | 667,457 | Greater Halifax....       | 74,161 | 91,829 |
| Toronto, Ont.....             | 631,207   | 900,491 | Verdun, Que.....          | 60,745 | 67,349 |
| Greater Toronto....           | 810,467   | 275,353 | Regina, Sask.....         | 53,209 | 58,245 |
| Vancouver, B.C.....           | 246,593   | 351,491 | Saint John, N.B....       | 47,514 | 51,741 |
| Greater Vancouver..           | 308,340   | 221,960 | Greater Saint John..      | 58,717 | 65,784 |
| Winnipeg, Man.....            | 218,785   | 290,540 | Victoria, B.C.....        | 39,082 | 44,068 |
| Greater Winnipeg...           | 284,295   | 176,110 | Greater Victoria....      | —      | 75,218 |
| Hamilton, Ont.....            | 155,547   | 166,337 | Saskatoon, Sask....       | 43,291 | 43,027 |
| Greater Hamilton...           | 163,710   | 154,951 | Three Rivers, Que..       | 35,450 | 42,007 |
| Ottawa, Ont.....              | 126,872   | 175,988 | Sherbrooke, Que....       | 28,933 | 35,965 |
| Greater Ottawa.....           | 175,988   | 150,757 | Kitchener, Ont.....       | 30,793 | 35,657 |
| Quebec, Que.....              | 130,594   | 200,814 | Hull, Que.....            | 29,433 | 32,947 |
| Greater Quebec.....           | 172,517   | 105,311 | Sudbury, Ont.....         | 18,518 | 32,203 |
| Windsor, Ont.....             | 98,179    | 121,112 | Brantford, Ont.....       | 30,107 | 31,948 |
| Greater Windsor....           | 110,385   | 93,817  | Outremont, Que....        | 28,641 | 30,751 |
| Edmonton, Alta.....           | 79,197    | 88,904  | Fort William, Ont..       | 26,277 | 30,585 |
| Calgary, Alta.....            | 83,761    | 78,264  | St. Catharines, Ont..     | 24,753 | 30,275 |
| London, Ont.....              | 71,148    | 86,740  | Kingston, Ont.....        | 23,439 | 30,126 |
| Greater London.....           | ...       | ...     |                           |        |        |

## Distribution of Population by Sex and Age Groups, Census Years 1921-41

| Age Group            | 1921             |                  | 1931             |                  | 1941             |                  |
|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                      | Males            | Females          | Males            | Females          | Males            | Females          |
| Under 10 years.....  | 1,062,053        | 1,044,190        | 1,115,679        | 1,091,485        | 1,062,995        | 1,034,679        |
| 10-19 years.....     | 864,517          | 850,350          | 1,068,180        | 1,045,462        | 1,121,516        | 1,099,396        |
| 20-29 ".....         | 698,593          | 699,050          | 873,698          | 823,768          | 1,006,296        | 993,120          |
| 30-39 ".....         | 685,537          | 599,674          | 727,216          | 670,083          | 828,044          | 775,356          |
| 40-49 ".....         | 523,335          | 438,780          | 669,276          | 562,034          | 681,119          | 630,572          |
| 50-59 ".....         | 343,266          | 298,974          | 466,492          | 389,214          | 591,100          | 507,496          |
| 60-69 ".....         | 217,012          | 194,262          | 277,607          | 248,124          | 381,074          | 333,801          |
| 70 or over.....      | 123,742          | 123,352          | 173,682          | 171,015          | 228,392          | 231,699          |
| Not given.....       | 11,588           | 9,674            | 2,711            | 1,060            | —                | —                |
| <b>All Ages.....</b> | <b>4,529,643</b> | <b>4,258,306</b> | <b>5,374,541</b> | <b>5,002,245</b> | <b>5,900,536</b> | <b>5,606,119</b> |

Virginiatown in the Timiskaming district of Northern Ontario. As the mining, pulp and paper and water-power industries prosper in Canada's vast hinterland, modern and attractive communities frequently grow up around them.



### Leading Origins, by Provinces, 1941

| Province                    | British Isles Races | French           | German         | Ukrainian      | Scandinavian               | Netherlands    | Jewish         | Polish         | Indian         |
|-----------------------------|---------------------|------------------|----------------|----------------|----------------------------|----------------|----------------|----------------|----------------|
| P.E.I.....                  | 78,714              | 14,799           | 172            | 2              | 152                        | 494            | 25             | 1              | 258            |
| N.S.....                    | 445,178             | 66,260           | 15,038         | 711            | 2,353                      | 23,834         | 2,285          | 2,206          | 2,063          |
| N.B.....                    | 276,758             | 163,934          | 1,394          | 22             | 2,929                      | 4,539          | 1,228          | 233            | 1,939          |
| Que.....                    | 452,887             | 2,695,032        | 8,880          | 8,006          | 4,840                      | 2,645          | 66,277         | 10,036         | 11,863         |
| Ont.....                    | 2,729,830           | 373,990          | 167,102        | 48,158         | 27,225                     | 73,001         | 69,875         | 54,893         | 30,336         |
| Man.....                    | 360,560             | 52,996           | 41,479         | 89,762         | 32,620                     | 39,204         | 18,879         | 36,550         | 15,473         |
| Sask.....                   | 397,905             | 50,530           | 130,258        | 79,777         | 68,806                     | 35,894         | 4,149          | 27,902         | 13,384         |
| Alta.....                   | 399,432             | 42,979           | 77,721         | 71,868         | 63,494                     | 20,429         | 4,164          | 26,845         | 12,565         |
| B.C.....                    | 571,336             | 21,876           | 22,407         | 7,563          | 41,560                     | 12,737         | 3,350          | 8,744          | 24,875         |
| <b>Canada<sup>1</sup>..</b> | <b>5,715,904</b>    | <b>3,483,038</b> | <b>464,682</b> | <b>305,929</b> | <b>244,603<sup>2</sup></b> | <b>212,863</b> | <b>170,241</b> | <b>167,485</b> | <b>118,316</b> |

<sup>1</sup> Includes Yukon and the Northwest Territories.  
Icelandic, 100,718 Norwegian and 85,396 Swedish.

<sup>2</sup> Includes 37,439 Danish, 21,050

### Birthplaces of the Population, Census Years 1901-41

| Year    | Canadian Born |       | Other British Born <sup>1</sup> |       | Foreign Born |      |         |      | Total Population        |
|---------|---------------|-------|---------------------------------|-------|--------------|------|---------|------|-------------------------|
|         |               |       |                                 |       | U.S. Born    |      | Other   |      |                         |
|         | No.           | p.c.  | No.                             | p.c.  | No.          | p.c. | No.     | p.c. | No.                     |
| 1901... | 4,671,815     | 86.98 | 421,051                         | 7.84  | 127,899      | 2.38 | 150,550 | 2.80 | 5,371,315               |
| 1911... | 5,619,682     | 77.98 | 834,229                         | 11.58 | 303,680      | 4.21 | 449,052 | 6.23 | 7,206,643               |
| 1921... | 6,832,224     | 77.75 | 1,065,448                       | 12.12 | 374,022      | 4.26 | 516,255 | 5.87 | 8,787,949               |
| 1931... | 8,069,261     | 77.76 | 1,184,830                       | 11.42 | 344,574      | 3.32 | 778,121 | 7.50 | 10,376,786              |
| 1941... | 9,487,808     | 82.46 | 1,003,769                       | 8.72  | 312,473      | 2.72 | 701,660 | 6.10 | 11,506,655 <sup>2</sup> |

<sup>1</sup> Includes some hundreds of persons born at sea.  
not stated.

<sup>2</sup> Includes persons with birthplace





Winnipeg, Man., incorporated as a city in 1873 with a population of only 1,664, has become in 75 years the fourth largest metropolitan area in Canada.

### Conjugal Condition of the Population, by Provinces and Sex, 1941

| Province or Territory          | Single           | Married          | Widowed        | Divorced     | Per-<br>manently<br>Separated | Total <sup>1</sup> |
|--------------------------------|------------------|------------------|----------------|--------------|-------------------------------|--------------------|
| MALES                          |                  |                  |                |              |                               |                    |
| Prince Edward Island.....      | 29,828           | 17,625           | 1,549          | 22           | 202                           | 49,228             |
| Nova Scotia.....               | 173,506          | 111,132          | 9,359          | 247          | 1,770                         | 296,044            |
| New Brunswick.....             | 140,952          | 85,093           | 6,695          | 197          | 1,137                         | 234,097            |
| Quebec.....                    | 1,027,162        | 591,533          | 46,386         | 500          | 7,270                         | 1,672,982          |
| Ontario.....                   | 993,265          | 851,096          | 60,210         | 2,291        | 14,105                        | 1,921,201          |
| Manitoba.....                  | 209,939          | 155,157          | 10,268         | 473          | 2,218                         | 378,079            |
| Saskatchewan.....              | 283,297          | 179,996          | 11,383         | 468          | 2,351                         | 477,563            |
| Alberta.....                   | 243,666          | 168,469          | 10,594         | 801          | 2,891                         | 426,458            |
| British Columbia.....          | 215,205          | 200,027          | 13,979         | 1,547        | 4,213                         | 435,031            |
| <b>Canada<sup>2</sup>.....</b> | <b>3,322,827</b> | <b>2,363,528</b> | <b>170,743</b> | <b>6,569</b> | <b>36,201</b>                 | <b>5,900,536</b>   |
| FEMALES                        |                  |                  |                |              |                               |                    |
| Prince Edward Island.....      | 24,748           | 17,473           | 3,401          | 19           | 178                           | 45,819             |
| Nova Scotia.....               | 148,474          | 109,513          | 21,544         | 268          | 2,115                         | 281,918            |
| New Brunswick.....             | 123,540          | 84,275           | 14,040         | 192          | 1,256                         | 223,304            |
| Quebec.....                    | 981,890          | 581,569          | 85,425         | 646          | 9,353                         | 1,658,900          |
| Ontario.....                   | 876,215          | 826,525          | 142,731        | 2,865        | 18,039                        | 1,866,454          |
| Manitoba.....                  | 176,458          | 151,105          | 20,625         | 654          | 2,818                         | 351,665            |
| Saskatchewan.....              | 221,557          | 175,112          | 18,965         | 381          | 2,414                         | 418,429            |
| Alberta.....                   | 186,215          | 161,953          | 17,963         | 717          | 2,850                         | 369,711            |
| British Columbia.....          | 165,064          | 181,932          | 29,235         | 1,718        | 4,878                         | 382,830            |
| <b>Canada<sup>2</sup>.....</b> | <b>2,907,741</b> | <b>2,292,478</b> | <b>354,378</b> | <b>7,463</b> | <b>43,936</b>                 | <b>5,606,119</b>   |

<sup>1</sup> Includes persons with conjugal condition not stated.

<sup>2</sup> Includes Yukon and the Northwest Territories.



## Leading Religious Denominations, by Provinces, 1941

| Province or Territory       | Roman Catholic <sup>1</sup> | United Church of Canada | Anglican         | Presbyterian   | Baptist        | Lutheran       | Jewish         | Greek Orthodox |
|-----------------------------|-----------------------------|-------------------------|------------------|----------------|----------------|----------------|----------------|----------------|
| P.E.I.....                  | 42,743                      | 24,005                  | 5,739            | 14,724         | 5,443          | 45             | 18             | 10             |
| N.S.....                    | 188,944                     | 124,301                 | 103,393          | 47,415         | 89,272         | 9,104          | 2,167          | 347            |
| N.B.....                    | 220,454                     | 63,268                  | 55,155           | 15,382         | 88,766         | 870            | 1,196          | 85             |
| Que.....                    | 2,894,621                   | 100,196                 | 162,056          | 56,086         | 12,303         | 7,081          | 65,683         | 12,040         |
| Ont.....                    | 882,369                     | 1,073,425               | 815,413          | 433,708        | 192,915        | 104,111        | 69,217         | 28,383         |
| Man.....                    | 203,259                     | 194,001                 | 125,076          | 43,073         | 13,267         | 48,213         | 18,715         | 20,777         |
| Sask.....                   | 243,734                     | 230,495                 | 117,674          | 54,856         | 19,460         | 104,717        | 4,076          | 37,699         |
| Alta.....                   | 191,343                     | 193,664                 | 113,279          | 68,910         | 32,268         | 84,630         | 4,052          | 34,991         |
| B.C.....                    | 113,282                     | 200,817                 | 245,531          | 94,300         | 29,780         | 41,772         | 3,235          | 5,198          |
| <b>Canada<sup>2</sup>..</b> | <b>4,986,552</b>            | <b>2,204,875</b>        | <b>1,751,188</b> | <b>829,147</b> | <b>483,592</b> | <b>401,153</b> | <b>168,367</b> | <b>139,629</b> |

<sup>1</sup> Includes Greek Catholic.

<sup>2</sup> Includes Yukon and the Northwest Territories.

**Annual Estimates of Population.**—The exact number of the population of Canada given at ten-year intervals by the Census is supplemented by estimates for intervening years. These are essential for the calculation of per capita figures in production and trade, and particularly for use as a base in birth and death comparisons. At every census the previous post-censal data are adjusted to the newly recorded population figures.

### Estimates of the Population, by Provinces, 1942-49

| Year     | P.E.I. | N.S. | N.B. | Que.  | Ont.  | Man. | Sask. | Alta. | B.C.  | Yukon and N.W. T. | Canada              |
|----------|--------|------|------|-------|-------|------|-------|-------|-------|-------------------|---------------------|
|          | '000   | '000 | '000 | '000  | '000  | '000 | '000  | '000  | '000  | '000              | '000                |
| 1942.... | 90     | 591  | 464  | 3,390 | 3,884 | 724  | 848   | 776   | 870   | 17                | 11,654              |
| 1943.... | 91     | 607  | 463  | 3,457 | 3,917 | 726  | 842   | 792   | 900   | 17                | 11,812              |
| 1944.... | 91     | 612  | 462  | 3,500 | 3,965 | 732  | 846   | 818   | 932   | 17                | 11,975              |
| 1945.... | 92     | 621  | 468  | 3,561 | 4,004 | 736  | 845   | 826   | 949   | 17                | 12,119              |
| 1946.... | 94     | 612  | 480  | 3,630 | 4,101 | 727  | 833   | 803   | 1,003 | 24                | 12,307              |
| 1947.... | 94     | 621  | 491  | 3,712 | 4,189 | 743  | 842   | 822   | 1,044 | 24                | 12,582              |
| 1948.... | 93     | 635  | 503  | 3,792 | 4,297 | 757  | 854   | 846   | 1,082 | 24                | 12,883              |
| 1949.... | 94     | 645  | 516  | 3,887 | 4,411 | 778  | 861   | 871   | 1,114 | 24                | 13,549 <sup>1</sup> |

<sup>1</sup> Includes 348,000, the estimated population of Newfoundland.

## Aboriginal Races

**Indians.**—There are more than 130,000 Canadians of Indian race, among whom are successful farmers and ranchers, lumbermen, fishermen and trappers. Most of them have chosen to remain on or near their ancestral lands. Some, however, are pursuing careers as doctors, dentists, ministers, teachers, priests, soldiers, factory workers, lawyers, mechanics, salesmen, tradesmen—almost every type of calling in the national community.

The administration of Indian Affairs is the responsibility of the Indian Affairs Branch of the Federal Department of Mines and Resources, with the exception of medical and health services, which are provided by the Department of Health and Welfare.

Experienced officers of Indian Affairs, while recognizing and protecting the historic rights and privileges of the Indian race, are convinced that the most important single influence and the one that can bring greatest benefit

to the future of the Indian is education. Therefore, despite teacher shortages and the high cost of school construction, the Department of Mines and Resources is undertaking a progressive and long-range education program.

Expenditures for Indian education for the year ended Mar. 31, 1949, amounted to \$5,403,012, and there were in operation 309 Indian day schools, 72 Indian residential schools and 5 combined schools. The numbers of Indian pupils enrolled were: 12,511 in Indian day schools, 9,368 in Indian residential schools and 104 in combined schools. In addition 1,302 attended provincial and private schools, making the total number of Indians enrolled in educational classes 23,285, an increase of 2,015 over the preceding year.

Arrangements were recently made whereby Indian school teachers now receive the benefits of the Civil Service Superannuation Act. The new salary schedule and retirement benefits, introduced into the Indian teaching service by the Administration, require that teachers attend professional and academic summer courses. This has resulted in marked improvement of teaching methods.

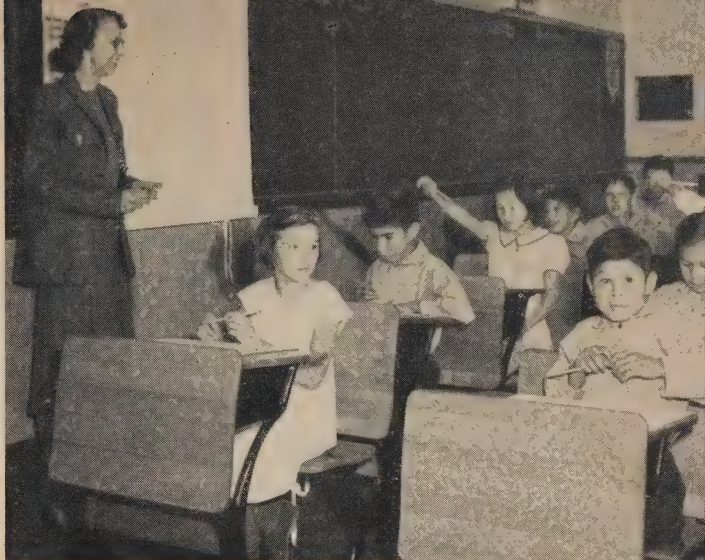
Post-war construction on Indian Reserves has been unusually active. Homes for Indian veterans, and new homes built by Indians as the result of a period of economic prosperity, account for much of the building. For the Indian who cannot afford the entire cost of a new home, assistance is given in providing the kind of dwelling in which he can bring up his family amid decent and healthful surroundings. In 1949-50, over \$1,000,000 will be spent for this type of housing assistance from the welfare appropriation of Indian Affairs; \$934,200 for new homes and \$271,895 for repairs and renovations.

One of the most useful welfare projects in recent times has been the disbursement and supervision of Family Allowances, by which 19,021 Indian families (with a total of 54,624 children) benefit. From the first, Agency Superintendents and Agents have been able to watch closely the uses to which Family Allowances were put. From across Canada, almost without exception, they report better filled lunch pails of Indian school children and improved clothing. School attendance, too, has risen since the payment of Allowances began. In the Northwest Territories and Yukon, where Family Allowances are paid in kind, the head of a family may obtain credit for those foodstuffs or clothing best designed for the welfare of the children.

The Indian war veteran has shared fully in the benefits received by his white comrade-in-arms. Almost 1,000 Indian veterans have shared in a \$2,000,000 over-all grant, expended for the following purposes: land and buildings, \$179,532; building materials, \$771,412; clearing land, \$57,673; stock and equipment, \$722,302; forestry equipment, \$9,495; commercial fishing equipment, \$162,446; fur farming, \$28,412; and household equipment, \$122,868.

Responsible officers of the Federal and Provincial Governments, with the whole-hearted assistance of the Indian (a born conservationist), have made great strides in the scientific control of the fur crop. Planned trapping with registered Indian trap lines, the stocking of great areas with muskrat and beaver and the setting aside of these areas for the sole use of Indian hunters have been a major undertaking, but one which is now returning dividends to the Indians. Of seven beaver preserves, three (two in Quebec and one in Ontario) went into production in 1948. In Ontario, the Abitibi preserve beaver catch, despite the drop of fur prices, brought the Indians

*Indian children at the Indian Residential School, Shubenacadie, N.S., answer questions about their diets during a nutritional survey conducted by the Department of National Health and Welfare.*



\$44,701, the Nottaway project \$55,866 and the Kesagami, \$43,968. The Old Factory preserve in Quebec also went into production in 1949 with a catch estimated at \$60,000.

The Indian Trust Fund, that is, money belonging to Indian Bands and realized through the sale of Band property, timber, oil rights, etc., is administered by the Department. The Government pays 5 p.c. interest on these monies which, as of Mar. 31, 1949, amounted to \$18,642,642. It is of interest to note that during the same year there was an expenditure of \$3,035,502 from Band funds. This amount was paid back to the Indians out of their own communal "bank account". Items of expenditure were mainly distribution of cash relief, pensions, improvement of roads, farming, ranching, enfranchisements and commutations. While individual Indians may secure loans from Band funds, such loans and expenditures must be approved by the Band in question. During the year ended Mar. 31, 1949, \$20,194 was loaned for the purchase of live stock and equipment, \$15,875 for repairs to buildings such as houses and barns, and \$9,975 for the construction of new homes and barns, etc.

Those most experienced in Indian administration recognize that the Indian, like his country, is sharing in a new order of progress, and that he is contributing to it as an increasingly well-educated and self-reliant citizen.

**Eskimos.**—The Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland, around the coast of Hudson Bay, and on some of the islands of the Arctic Archipelago. Most of the Eskimos are essentially coastal dwellers, obtaining much of their food and clothing from the mammals of the sea. However, there are groups of Eskimos living in the interior of Keewatin District on the west side of Hudson Bay who are inland people and who subsist chiefly on caribou and fish. In December, 1948, the Eskimo population of Canada, excluding Labrador, was estimated to be 8,378.

The economy of these nomadic people depends entirely on trapping, hunting and fishing. Trapping, chiefly of white fox, produces pelts to trade





*An Eskimo mother receives the Family Allowance for her children from an R.C.M.P. constable at Coppermine, 100 miles north of the Arctic Circle. The Allowance is given in the form of a credit note to the local trading post.*

at the posts for the goods of civilization. The seal, walrus, white whale, caribou and Arctic char (sea trout) are the principal sources of native food.

The Eskimos have little or no organization beyond the family. They hunt in small groups usually of two or more families with perhaps an outstanding individual as leader. Each group, following the movements of game and the changing seasons, secures its livelihood in its own district which has no definite boundaries.

The arduous conditions of life in the Arctic have taught the Eskimos that the wishes of the individual must be subordinate to the welfare of the majority and this, together with their inborn good nature, has made them easy to deal with. The Government of Canada, through the Lands and Development Services Branch of the Department of Mines and Resources, has made continuous and unremitting efforts to preserve the natural resources of the country so that the Eskimos may continue to be independent, self-reliant and self-supporting. However, depletion of the wildlife resources and wide fluctuations in the value of furs are matters for concern.

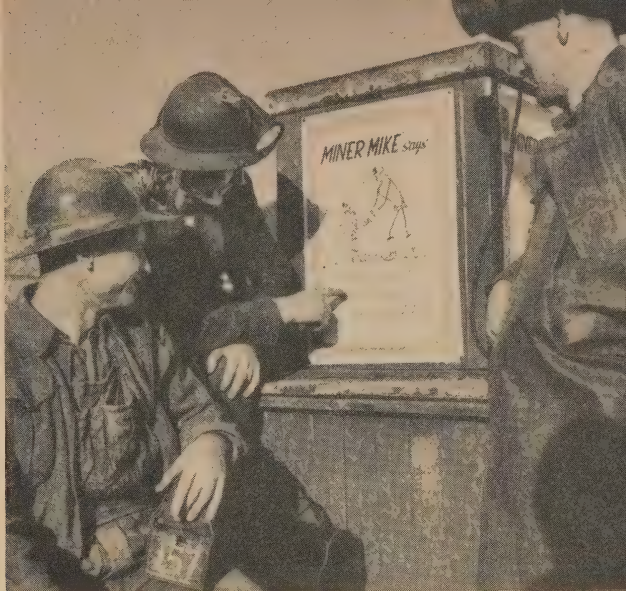
In order to maintain close contact with the Eskimos the Royal Canadian Mounted Police detachments throughout the far north act as local representatives of the Administration in all matters affecting Eskimo welfare. Contact is also maintained by radio, and through the Eastern Arctic Patrol, which carries representatives of the Administration and other Government Departments on annual inspection tours of the Eastern Arctic.

Medical care and hospitalization of Eskimos are functions of the Department of National Health and Welfare.

### *Immigration*

Noteworthy developments in immigration during 1949 have been the continuation of the highly successful movement to Canada of agriculturists from the Netherlands, an interesting change in the pattern of the Displaced

*Displaced persons, now employed as Canadian mining men, study special safety posters carrying information in four languages.*



Persons Movement, and the redefinition of the boundaries of immigration districts made necessary by the entry of Newfoundland into Confederation.

Since the movement started in 1947 following an agreement between the Netherlands and Canadian Governments, nearly 16,000 members of Dutch farm families had entered Canada by the end of September, 1949. Of this number, whose ultimate objective is the ownership of farms in Canada, many have been settled permanently on farms on an ownership, rental, or crop-sharing basis through the Settlement Service of the Immigration Branch. Large groups of these immigrants have gone to Ontario, but substantial numbers have also settled in Alberta, Quebec, Manitoba and British Columbia.

In the earlier stages of the Displaced Persons Movement, which started in April, 1947, the emphasis, in terms of numbers, was on groups brought to this country in response to requests from industries across Canada. Now that heads of families or single wage-earners have found a satisfactory level in the national economy, they are applying in increasing numbers for the admission of their close relatives.

As of Sept. 30, 1949, a total of 84,651 displaced persons had entered Canada, of whom 43,805 were admitted as close relatives of residents of this country. More than 58,000 of the 62,000 applications received from residents of Canada for the admission of relatives under this plan had been investigated. Some 1,292 orphan children had been placed in homes throughout the country.

Under the group movement plan, 39,629 displaced persons had been brought to Canada, including: farmers, 4,961; family farm groups, 3,272; woods workers, 3,599; textile workers, 568; domestics (married couples) 1,044; female domestics, 9,300; garment workers, 2,819; garment workers' dependants, 2,323; railway workers, 2,391; hydro workers, 2,483; building construction workers, 796; steel and foundry workers, 310; steel and foundry workers' dependants, 24; miners, 3,825; nurses, 42; special trades, 210; furriers, 461;

furriers' dependants, 414; shoe workers, 102; general labourers, 366; general labourers' dependants, 219; cabinet makers, 90; blacksmiths, 10.

The number of immigrants admitted to Canada during the year ended Mar. 31, 1949, was 125,603, as compared with 79,194 in the fiscal year 1947-48, and 66,990 in 1946-47. Of these, 118,297 arrived from overseas and 7,306 from the United States. Of the total, 44,047 were of British racial origin, 1,901 French, and 79,655 represented 47 other racial groups.

Figures for tourists who, although not immigrants, submit to immigration examination at the International Boundary and ocean ports, showed a total entry for the year ended Mar. 31, 1949, of 39,010,000, made up of 25,090,000 visitors from other countries, 13,915,000 Canadians returning from trips to other countries, and 4,600 Canadians returning after residing in the United States. Comparable figures for the previous year were 23,305,000 visitors, 14,178,000 returning residents and 9,000 returned Canadians. The figures pertaining to Canadians returning from visits to other countries include persons who crossed and recrossed the Boundary frequently.

## ★Vital Statistics

National statistics on births, stillbirths, marriages and deaths have been published since 1920 by the Dominion Bureau of Statistics under authority of the Statistics Act of 1918. At that time a plan was devised whereby the Dominion Bureau of Statistics and the vital statistics authority in each province as well as Yukon and the Northwest Territories would co-operate in the production of the national figures; registration was to be carried out by the provincial authorities and the legislation of each province was made to conform in essential features—one of which was compulsory registration—to a model Vital Statistics Act. Since the initiation of this collaborative national system, material progress has been made in modifying and improving registration techniques and procedures. Of particular interest in this regard was the revision in 1935 of the medical certificate of death.

Conferences on vital statistics held in 1943, 1944 and 1948 were attended by the provincial and federal officials, by representatives of other departments of government and interested national agencies. Topics discussed at these conferences covered such widely diversified problems as: registration affecting Indians; interprovincial exchange of vital records; establishment of standards for delayed registration of births; definition of vital statistics terms; standards of certification; divorce and adoption records; and revision of the model Vital Statistics Act. The 1944 Conference resulted in three major developments:—

- (1) The preparation of a national index covering all persons born in, or immigrating to, Canada since 1925 which is designed for use in connection with Family Allowances and for other governmental purposes.
- (2) The establishment of a Vital Statistics Council made up of a representative from each provincial vital statistics office and the federal officials concerned with vital statistics.
- (3) A revised Dominion-Provincial agreement on Vital Statistics which came into effect on July 1, 1945.

The Vital Statistics Council, which meets at least once a year, has been working towards improvement in statistical and registration techniques and promotion of complete and accurate registration of vital events. In recent years registration has been virtually complete in all provinces. The





*Summer outing at Oak Grove, Niagara-on-the-Lake, Ont.*

vital statistics of the Province of Newfoundland will be integrated in due course with those of the present Canadian Registration Area.

**Births.**—There have been several clear-cut cycles in the number of births recorded in Canada. From 1926 to 1930 there was a gradual upward trend from 232,750 to 243,495. This movement was then reversed during the depression period until 1937 when the number of births reached its lowest point at 220,235. During this period Canada's birth rate varied from about 20 to 24 births per 1,000 population. Because of the growing population the rate, however, dropped between 1930 and 1937 from 23.9 to 20.0. The influence of the War is reflected in the sharp increase that took place from 22.2 in 1939 to 28.6 in 1947. There was a drop to 27.0 in 1948, a trend noticeable in most other civilized countries of the world.

Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that an accurate ratio of male to female births has become one of the criteria of complete registration. The numbers of males to every 1,000 females born in Canada in 1941-46 varied between 1,057 and 1,067 and were 1,051 and 1,053 in 1947 and 1948, respectively.

Hospitalization and medical attendance at birth have increased greatly in recent years. In 1926-30 only 22 p.c. of live births occurred in hospitals, while in 1947 the proportion was 71 p.c. for Canada as a whole including Yukon and the Northwest Territories. In some provinces, particularly where

either free or prepaid medical care service is provided, the proportions of hospitalized births were much higher, running to 96 p.c. in one province and to between 85 and 95 p.c. in four others.

**Deaths.**—The annual death rate in Canada averages less than 10 per 1,000 population, which is fairly low in comparison with other countries of the world.

The ten leading causes of death accounted for about 84 p.c. of the total in 1948. Diseases of the heart, considered as a group, was the most important with a rate of 263.6 per 100,000 population. The death rate from this cause increased yearly from 231.5 in 1941. The second leading cause of death in 1948 was cancer with 126.4 deaths per 100,000 population, the rate having advanced from 80.7 in 1926. The increase in cancer deaths is rather misleading: it is due in part to improvement in diagnostic and X-ray techniques which enable the causes of death to be identified, instead of being attributed to other or unknown causes, but is mainly due to the ageing of the population.

Cerebral hemorrhage and allied cerebral conditions as a group constituted the third leading cause of death in 1948 accounting for 79 deaths per 100,000 population; accidents and other violent deaths, fourth with 9,000 deaths and a rate of 69.7. On the other hand tuberculosis which in 1926 was fourth with almost 8,000 deaths was in eighth place in 1948 with 4,771 deaths and a rate of 37.1, while the influenza, bronchitis and pneumonia group, the leading killers in 1926 with 14,188 deaths, accounted for less than 7,000 deaths in 1948 and was fifth in that year with a rate of 54.5.

Deaths of mothers due to childbirth have shown marked reduction in the past two decades and particularly since 1940. During the period 1926-30 an average of 57 mothers died for every 10,000 children born alive (a rate of 5.7 per 1,000 live births); in 1940 the ratio was 40, and in 1947 and 1948 it was further reduced to 15.

**Infant Mortality.**—During recent years, the death rate for children under one year of age has shown substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 54 in 1942 and 1943. Since 1944 the rate has progressively declined from 55 to 44 per 1,000 live births.

### *Infant Deaths and Death Rates, by Provinces*

| Province              | Infant Deaths under One Year |        |        |        |        |                   | Rates per 1,000 Live Births |      |      |      |      |                   |
|-----------------------|------------------------------|--------|--------|--------|--------|-------------------|-----------------------------|------|------|------|------|-------------------|
|                       | 1926                         | 1944   | 1945   | 1946   | 1947   | 1948 <sup>p</sup> | 1926                        | 1944 | 1945 | 1946 | 1947 | 1948 <sup>p</sup> |
| P.E.I.....            | 123                          | 102    | 102    | 97     | 135    | 97                | 70                          | 45   | 45   | 35   | 45   | 34                |
| N.S.....              | 882                          | 838    | 823    | 822    | 840    | 695               | 80                          | 54   | 53   | 46   | 44   | 39                |
| N.B.....              | 1,095                        | 1,035  | 966    | 1,066  | 1,041  | 1,047             | 106                         | 77   | 71   | 66   | 59   | 61                |
| Que.....              | 11,666                       | 6,918  | 6,464  | 6,110  | 6,574  | 6,211             | 142                         | 68   | 62   | 55   | 57   | 54                |
| Ont.....              | 5,302                        | 3,346  | 3,209  | 3,653  | 3,912  | 3,682             | 78                          | 43   | 41   | 37   | 36   | 35                |
| Man.....              | 1,122                        | 786    | 781    | 885    | 931    | 765               | 77                          | 49   | 48   | 47   | 46   | 41                |
| Sask.....             | 1,681                        | 858    | 824    | 1,004  | 1,019  | 866               | 81                          | 47   | 44   | 47   | 44   | 40                |
| Alta.....             | 1,233                        | 889    | 862    | 945    | 914    | 930               | 85                          | 46   | 43   | 43   | 37   | 39                |
| B.C.....              | 588                          | 767    | 792    | 852    | 958    | 870               | 58                          | 40   | 42   | 38   | 36   | 33                |
| Canada <sup>1</sup> . | 23,692                       | 15,539 | 14,823 | 15,434 | 16,324 | 15,163            | 102                         | 55   | 51   | 47   | 45   | 44                |

<sup>1</sup> Exclusive of Yukon and the Northwest Territories.

**Natural Increase.**—The rate of natural increase in population represents the difference between the birth and death rates and is similarly expressed in terms of 1,000 population. In 1926 the natural increase rate amounted to

13.3 but, with the rapidly declining birth rates of the depression period coupled with slower declining death rates, the natural increase rate declined to 9.7 in 1939. During the war years, the natural increase rate rose proportionally with the increased births to 12.2 in 1941, 14.0 in 1943 and 19.2 in 1947. The decline in the birth rate to 27.0 in 1948 and a slight decline to 9.3 in the death rate, brought the natural increase rate down to 17.7 in 1948.

**Marriages.**—In 1929 marriages in Canada numbered 77,288 after they had increased steadily since 1926. The depression exercised a marked influence on marriages and on the marriage rate, causing a steep downward movement until 1932, when the number of marriages was 62,531. From 1933 to 1942 a fairly steady increase took place, so that in 1942 marriages numbered 127,372 and the rate per 1,000 population was 10.9. For the years 1943 to 1945 the numbers and rates were somewhat lower but, during 1946, marriages numbered 134,088, the highest ever recorded, and the rate was 10.9. The number declined in 1947 and 1948 to 127,311 and 123,313 with rates of 10.1 and 9.6, respectively.

### *Births, Marriages and Deaths, 1926-48*

| Year                    | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|-------------------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|                         | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| Av. 1926-30...          | 236,521 | 24.1              | 71,886    | 7.3               | 108,925 | 11.1              | 1,339           | 5.7               |
| Av. 1931-35...          | 228,352 | 21.5              | 68,594    | 6.5               | 103,602 | 9.8               | 1,153           | 5.0               |
| Av. 1936-40...          | 228,767 | 20.5              | 96,824    | 8.7               | 109,514 | 9.8               | 1,043           | 4.6               |
| 1939.....               | 229,468 | 20.4              | 103,658   | 9.2               | 108,951 | 9.7               | 967             | 4.2               |
| 1940.....               | 244,316 | 21.5              | 123,318   | 10.9              | 110,927 | 9.8               | 978             | 4.0               |
| 1941.....               | 255,317 | 22.2              | 121,842   | 10.6              | 114,639 | 10.0              | 901             | 3.5               |
| 1942.....               | 272,313 | 23.4              | 127,372   | 10.9              | 112,978 | 9.7               | 818             | 3.0               |
| 1943.....               | 283,580 | 24.0              | 110,937   | 9.4               | 118,635 | 10.1              | 798             | 2.8               |
| 1944.....               | 284,220 | 23.8              | 101,496   | 8.5               | 116,052 | 9.7               | 776             | 2.7               |
| 1945.....               | 288,730 | 23.9              | 108,031   | 8.9               | 113,414 | 9.4               | 660             | 2.3               |
| 1946.....               | 330,732 | 26.9              | 134,088   | 10.9              | 114,931 | 9.4               | 595             | 1.8               |
| 1947.....               | 359,094 | 28.6              | 127,311   | 10.1              | 117,725 | 9.4               | 554             | 1.5               |
| 1948 <sup>p</sup> ..... | 347,222 | 27.0              | 123,313   | 9.6               | 119,352 | 9.3               | 509             | 1.5               |

<sup>1</sup> Per 1,000 population.

<sup>2</sup> Per 1,000 live births.

### *Births, Marriages and Deaths, by Provinces, 1948*

(Preliminary figures)

| Province                  | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|---------------------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|                           | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| P.E.I.....                | 2,842   | 30.6              | 635       | 6.8               | 887     | 9.5               | 3               | 1.1               |
| N.S.....                  | 17,792  | 28.0              | 5,093     | 8.0               | 6,097   | 9.6               | 19              | 1.1               |
| N.B.....                  | 17,280  | 34.4              | 4,640     | 9.2               | 4,959   | 9.9               | 23              | 1.3               |
| Que.....                  | 114,654 | 30.2              | 34,646    | 9.1               | 33,589  | 8.9               | 232             | 2.0               |
| Ont.....                  | 104,169 | 24.2              | 43,241    | 10.1              | 42,353  | 9.9               | 124             | 1.2               |
| Man.....                  | 18,863  | 24.9              | 7,325     | 9.7               | 6,670   | 8.8               | 28              | 1.5               |
| Sask.....                 | 21,561  | 25.2              | 7,171     | 8.4               | 6,496   | 7.6               | 22              | 1.0               |
| Alta.....                 | 24,074  | 28.5              | 8,844     | 10.5              | 6,987   | 8.3               | 29              | 1.2               |
| B.C.....                  | 25,987  | 24.0              | 11,718    | 10.8              | 11,314  | 10.5              | 29              | 1.1               |
| Canada <sup>3</sup> ..... | 347,222 | 27.0              | 123,313   | 9.6               | 119,352 | 9.3               | 509             | 1.5               |

<sup>1</sup> Per 1,000 population.  
the Northwest Territories.

<sup>2</sup> Per 1,000 live births.

<sup>3</sup> Exclusive of Yukon and





*The Peace Tower, Ottawa, in lilac time.*

# The Government

THE constitution of Canada is based on the British North America Act, 1867, and its amendments. It is federal in form, with many features borrowed from the British Parliamentary system and adapted to Canadian practice. The Act divides the field of legislative and executive power between national and provincial authorities, giving to the provinces control over such items as education, the administration of justice, municipal institutions, the establishment and maintenance of prisons and hospitals and the administration of public lands. The provinces also have the power of direct taxation to raise revenue for provincial purposes. The field of the Federal Government may be described as the power to make laws for the peace, order and good government of Canada in relation to all matters not assigned exclusively to the provinces. The Federal Government also has unlimited powers of taxation.

In both the federal and provincial fields there is responsible government, whereby the Ministry is answerable for its conduct to the elected representatives of the people in the House of Commons or the Legislative Assemblies. Under the constitution the courts administer the law as it is drawn up and amended by the legislatures.

**Federal Government.**—The Federal Government is composed of the King (represented by the Governor General), the Senate and the House of Commons. The Governor General, appointed by the King usually for a five-year term, acts only on the advice of the King's Privy Council for Canada, a committee of which constitutes the Ministry of the day. The Ministry, or Cabinet, which is made up of Members of the House of Commons or the Senate, is responsible to Parliament and resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

The Senate, the Upper House of the legislative branch of government, has 102 members. Quebec and Ontario each has 24, Nova Scotia and New Brunswick 10 each, the four western provinces 6 each, Newfoundland 6 and Prince Edward Island 4. Membership is for life, vacancies being filled by the government of the day. The Senate passes on all legislation equally with the House of Commons, but has no power to initiate legislation for the expenditure of public funds. The House of Commons initiates most of the legislation and all money bills. It has 262 members elected directly by the people for a maximum term of five years. The number of members assigned

to each province is computed according to population and is adjusted following each decennial census. Provincial distribution at present is as follows:—

|                    |    |                  |    |                  |   |
|--------------------|----|------------------|----|------------------|---|
| Ontario.....       | 83 | Alberta.....     | 17 | Newfoundland.... | 7 |
| Quebec.....        | 73 | Manitoba.....    | 16 | Prince Edward    |   |
| Saskatchewan....   | 20 | Nova Scotia..... | 13 | Island.....      | 4 |
| British Columbia.. | 18 | New Brunswick... | 10 | Yukon.....       | 1 |

The right to vote in federal elections is conferred on all British subjects, men and women, who have attained the age of 21 and have resided in Canada for 12 months prior to polling day.

The judicial branch of the Federal Government comprises the Supreme Court of Canada, the Exchequer Court of Canada and courts established under the Railway Act, the Bankruptcy Act the and Farmers' Creditors Arrangement Act. The Supreme Court is the final court of appeal in Canada. The Chief Justice of Canada and the puisne judges of the Supreme and Exchequer Courts are appointed by the Governor General in Council.

**Provincial Government.**—In the provinces, government is conducted along the same general lines as the Federal Government. The Lieutenant-Governor in each province is the representative of the Crown and is appointed by the Governor General in Council for a term of five years. The provinces, with the exception of Quebec, have one legislative body known as the Legislative Assembly, whose members are elected by popular vote. Quebec still retains a second legislative body, corresponding to the Senate, known as the Legislative Council, the members of which are appointed for life. In the provinces, the Executive Councils perform functions parallel to those of the Cabinet at Ottawa.

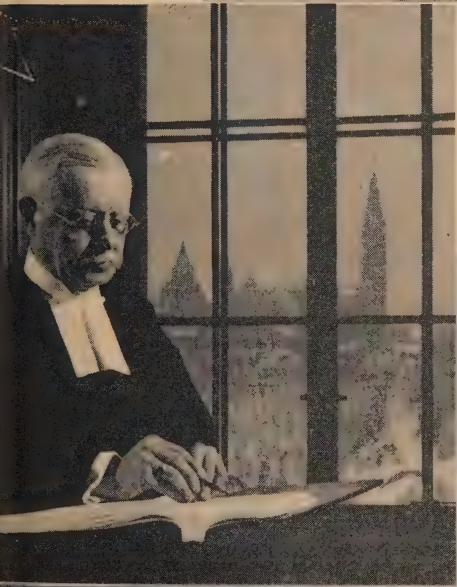
The legislature of each province makes laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial, civil and criminal courts. The judges of the Superior, District and County Courts in each province, except those of the Courts of Probate in Nova Scotia and New Brunswick, are appointed by the Federal Government from the bars of their respective provinces. Judges salaries and pensions are also fixed by the Federal Parliament.

**Government of the Territories.**—Yukon and the Northwest Territories, those vast northern areas with their small and scattered populations, are under the administration and protection of the Federal Government. Yukon has a local government composed of a Commissioner appointed by the Governor General in Council and a Territorial Council of three members elected for a three-year term. The Government of the Northwest Territories is vested in a Commissioner assisted by a Council of six members, all of whom are appointed by the Governor General in Council. These Councils perform much the same functions as do the Provincial Governments but act under instructions from the Federal Government.

**Municipal Government.**—Under the British North America Act, the municipalities are the creations of the Provincial Governments and for this reason their bases of organization and their powers differ. However, almost everywhere municipal governments, like other forms of government, have found their spheres of activity continually broadening and they have developed considerable powers of local self-government.



The Supreme Court  
—the final court  
of appeal in  
Canada.



The Chief Justice of Canada from whose office can be  
← seen the Parliament Buildings.

The Chief Justice and six of the puisne judges of the  
↓ Supreme Court as they enter to assume their seats.





A well-known Ottawa home, which is in process of conversion into the official residence for Canada's Prime Ministers.

## ★ *Canada's Status within the Commonwealth*

At the time of Confederation, Canada was self-governing in respect of her domestic affairs, but the Parliament of the United Kingdom retained the power to enact laws extending to Canada and the right to disallow certain Canadian legislation. The Canadian Government took no part in foreign affairs, for the United Kingdom was responsible for the foreign policy of the whole British Empire. However, from 1867 to the present day, the bounds of Canadian autonomy have been gradually enlarged. Canada to-day has, under the Crown, equality in status with Great Britain and the other member nations in both domestic and foreign affairs; its government advises the Crown in the person of the Governor General on all matters relating to Canada; it has membership in the United Nations organizations; makes its own treaties; appoints its own ambassadors and other representatives abroad; levies its own taxes; makes its own laws which are executed by a government dependent on the will of a majority of the Canadian people; and maintains its own military, naval and air forces. In short, Canada now stands as a free democratic nation within the Commonwealth.

## ★ *Canada's External Services\**

Since Canada is one of the principal trading nations, its well-being is dependent, to a high degree, on world trade and prosperity. An original member of the League of Nations before the Second World War, Canada has always been a firm supporter of collective security as a way to peace. Support of the United Nations to-day is a corner-stone of its external policy. Within this framework, Canada is vitally concerned with strengthening the North Atlantic Treaty, which was planned with other free nations as a combined effort to preserve peace and restrain aggression, and with the economic recovery of Western Europe.

\* The Department of External Affairs produces a number of publications dealing with Canada's external developments including the monthly bulletin *External Affairs* and the annual report *Canada and the United Nations*.



**International Activities.**—Canada's development towards the stature of a Middle Power is to-day shown in its added responsibilities undertaken in a world where the remotest nations are neighbours, and where shrunken distances are measured in terms of flying hours. In 1945, Canada signed the Charter of the United Nations at San Francisco, and has since taken an active part in the deliberations of the United Nations. Canada is at present serving its second term (January, 1950, to December, 1952) as a member of the Economic and Social Council; its first term ran from January, 1946, to December, 1948. From January, 1948, to December, 1949, Canada was a member of the Security Council, having been elected to one of the six non-permanent seats.

In addition, many of the specialized agencies of the United Nations—such as the International Labour Organization, the World Health Organization, the International Civil Aviation Organization, the Food and Agriculture Organization, and the United Nations Educational, Scientific and Cultural Organization—count Canada among their members. Through participation in these specialized agencies, Canada has supplemented the work that has been done by its representatives on the Security Council and the Atomic Energy Commission, and its delegations to the annual sessions of the General Assembly of the United Nations.

At the same time Canada has maintained its traditional associations with the other nations of the Commonwealth, and in 1949 was represented at the Commonwealth meetings at London.

*The Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada, chats with United States Ambassador Laurence Steinhart, under a portrait of the Rt. Hon. Sir Wilfrid Laurier, Prime Minister of Canada from 1896 to 1911.*







*The French Embassy, Sussex Street, Ottawa.*

The year 1949 marked the union of Newfoundland with Canada. The importance of Canada in the strategic area of the North Atlantic has therefore been greatly increased.

Canada emerged from the Second World War with an immensely greater productive capacity than in 1939, and as a relatively large creditor nation on current account. The reconstruction of Europe and the rebuilding of international trade are essential to Canada's interests as a great trading nation and Canadian resources have been directed to this end as well as to internal reconstruction. By the end of 1949 Canada had made available over \$2,000,000,000 in export credits and relief to its recent Allies, including a loan of \$1,250,000,000 to the United Kingdom. Canada actively supported the establishment of the International Bank for Reconstruction and Development and the International Monetary Fund. Canada also took a leading part in promoting the International Trade Organization of the United Nations; in working out the charter of the Organization which was drafted in Havana in 1947 and 1948; and in conducting the Annecy Tariff Negotiations of 1949.

**Canada's Diplomatic Service.**—The Department of External Affairs was established in 1909. The Washington Legation was opened in 1927. The Agent-General in Paris was elevated to the rank of Minister the following year, and in 1929 a Legation was opened in Tokyo; but the development of the new service was halted during the depression years of the 1930's. Only one further advance was made before the outbreak of war: in 1939, Legations were established in Belgium and the Netherlands, with the two missions served jointly by one Minister. All of these Legations were subsequently given Embassy status.

The period of the Second World War was marked by a rapid expansion of Canadian representation abroad. New missions were opened in all member states of the Commonwealth and in many foreign countries. The growth of the diplomatic service continued after the end of the War, with the recruitment of personnel returning from the Armed Forces. By the autumn of 1949, diplomatic or consular missions were established in thirty-five countries.

At present there are Embassies in Argentina, Belgium, Brazil, Chile, China, France, Greece, Italy, Mexico, The Netherlands, Peru, Turkey, the

*Canada House, the office of the High Commissioner for Canada in London, England.*



Union of Soviet Socialist Republics, and the United States. Legations are located in Cuba, Czechoslovakia, Denmark, Norway, Poland, Sweden, Switzerland and Yugoslavia. The Ambassador to Belgium is also accredited as Minister to Luxembourg; the Minister to Sweden as Minister to Finland; and the Minister to Norway as Minister to Iceland.

Canada has High Commissioners in Australia, India, Ireland, New Zealand, South Africa, and the United Kingdom.

The Canadian Consular service was first established during the Second World War. Consulates-general are now located in New York, Chicago, San Francisco, Lisbon, Caracas and Shanghai. Consulates are maintained at São Paulo, Frankfurt, Boston, Detroit and Portland, Maine.

Canada also has a Permanent Delegation to the United Nations in New York City and to the European Office of the United Nations in Geneva; a Military Mission in Berlin; and a civilian Liaison Mission in Tokyo.

Fifty-three countries maintain representation in Canada.

*Office of the High Commissioner for South Africa, Sussex Street, Ottawa. Behind and to the left is the residence of the High Commissioner.*







Summertime means a week or two at camp for most boys. Facilities for the less fortunate are provided through the efforts of many private and charitable organizations.



# Health and Welfare Veterans Affairs

## ★ *Public Health*

THE responsibility for public health in Canada rests mainly with provincial and local governments, with the Federal Government assuming an increasing share in co-ordination and assistance, and important contributions being made by private associations and organizations. Planning, supervision and financial responsibility have been largely assumed by the provinces, and to a lesser extent by the Federal Government, with actual administration being carried on for the most part by municipal and other local authorities.

The principal co-ordinating agency is the Dominion Council of Health which is composed of the Deputy Minister of National Health, as chairman, the chief health officer of each province and five other members. The Council advises the Minister of National Health and Welfare on the formulation of policy. It is largely responsible for the development of an integrated and co-operative health program and for advising on the establishment within the Federal Department of Health and Welfare of services that can be better operated on a national scale. Under the Council, federal-provincial committees deal with specific aspects of public health.

## *Federal Health Services*

A federal department of health was first established in 1919, to administer early health legislation such as the Quarantine, Opium and Narcotic Drug and Proprietary or Patent Medicine Acts, to promote research and health education and to co-operate with the provinces in the co-ordination of public-health work in Canada. In 1928 these functions, together with health and other services for veterans, were taken over by the new Department of Pensions and National Health. In 1944 the Department of Veterans Affairs was established to assume responsibility for all services to veterans,



and commenced its outstanding treatment and rehabilitation programs. In the same year the Department of National Health and Welfare was established. The various divisions of the Department maintain liaison with the corresponding divisions in the provinces, provide advisory and consultative services and educational material and, on request, conduct special surveys. Divisions whose functions are mainly of this nature include Child and Maternal Health, Dental Health, Epidemiology, Hospital Design, Mental Health and Nutrition.

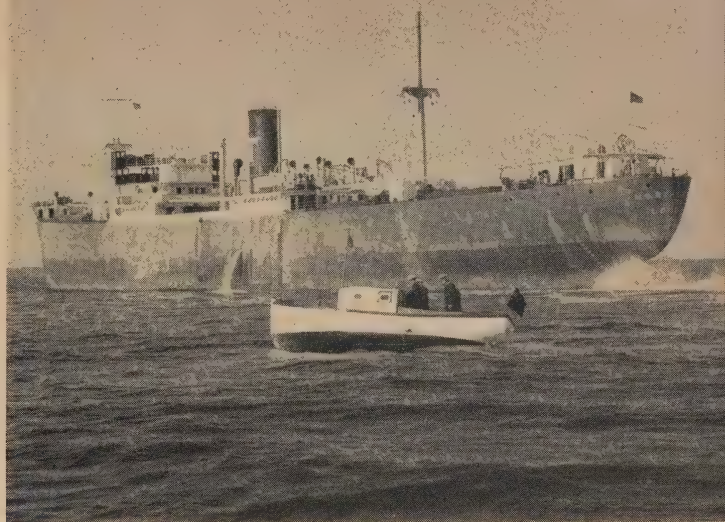
The Department has also certain statutory responsibilities in the administration of the Food and Drugs Act, Proprietary or Patent Medicine Act, Opium and Narcotic Drug Act, Quarantine Act, Public Works Health Act and sections of the Immigration and Canada Shipping Acts. In 1945 administration of health services for Indians and Eskimos was assumed by the Department. The Department shares with the provinces the cost of blind pensions, passes on the eligibility of applicants for pension on the basis of examinations arranged and paid for by the Federal Government and makes grants to the provinces for the remedial treatment of the blind. A new Division of Civil Aviation Medicine was established in 1948. Promotion of the health of federal civil servants is a departmental responsibility.

**The National Health Grant Program.**—This program, initiated in 1948 under the administration of the Department of National Health and Welfare, consists of three parts; the health survey grant to assist the provinces in assessing their needs and the priority with which they will be met; a group of annual grants designed to encourage the extension and development of provincial health programs; and an annual grant to aid in the provision of hospital accommodation. The amounts and types of these grants for the year ending Mar. 31, 1950, are as follows:—

| <u>Grant</u>                  | <u>Amount</u> | <u>Remarks</u>   |
|-------------------------------|---------------|--|
|                               | \$            |  |
| Health Survey.....            | —             | A non-recurring grant of \$644,779. The amounts not expended in the first year (1948-49) to be made available in succeeding years, as required, until exhausted. |
| General Public Health.....    | 5,276,000     | Based on a payment of 40 cts. per capita, rising each year by 5 cts. per capita until a maximum of 50 cts. is reached.   |
| Tuberculosis Control.....     | 3,176,614     | Commencing in 1950-51 a supplementary grant of \$1,000,000 annually will be made available.  |
| Mental Health.....            | 4,122,171     | To be increased to \$5,000,000 in 1950-51, to \$6,000,000 in 1952-53 and to \$7,000,000 in 1954-55.  |
| Venereal Disease Control..... | 515,944       | An annual grant of \$225,000 was in existence prior to commencement of Health Grant Program.   |
| Crippled Children.....        | 515,944       | —  |
| Cancer Control.....           | 3,590,093     | —  |
| Professional Training.....    | 515,944       | —  |
| Public Health Research.....   | 205,148       | To be increased until a maximum of \$500,000 per annum is reached.   |
| Hospital Construction.....    | 13,334,629    | To be reviewed at end of 1953-54 with possible reduction at that time.   |
| TOTAL.....                    | 31,252,487    |  |

**Medical Research.**—The Medical Research Division of the National Research Council acts as a co-ordinating body in the conduct of medical research in Canada. Its program is entirely extra-mural. Research projects

Medical personnel of the Quarantine, Immigration and Sick Mariner Service of the Department of National Health and Welfare go out by launch from their Pacific Coast station to inspect an incoming vessel.



are supported by grants-in-aid, and training is provided through the appointment of Research Fellows. While most of its work is done in Canadian medical schools, some important research is also maintained in hospital laboratories and clinics.

### *Provincial and Municipal Services*

Although basic local health services such as sanitation, communicable disease control and registration of births, deaths and marriages are generally in the hands of cities, municipalities, counties or other local units, Provincial Governments have gradually assumed increased financial responsibility, with correspondingly increased supervision and control. The Provincial Departments of Health generally plan and direct such health services as vital statistics, infant, child and maternal hygiene, public-health laboratories, health education and public-health nursing, as well as communicable disease control and public-health engineering.

Diagnostic and treatment clinics are provided in various provinces for one or more of such diseases as tuberculosis, venereal diseases, cancer and poliomyelitis. In some cases vaccines, sera and other special drugs are supplied by provincial laboratories to practising physicians. Other activities of the local and Provincial Health Departments include dental services, school medical services, epidemiology and industrial hygiene.

**Institutions.**—The provinces generally operate tuberculosis sanatoria or contribute to their maintenance. Mental hospitals also are usually provincial institutions. The provinces provide grants to assist in the maintenance of public general hospitals, which are largely supported by municipal and provincial funds.

**Health Units.**—In most provinces there are health districts or units; in many cases these correspond to cities or counties. They are mainly concerned with the usual public-health functions. In some provinces the





*Three Red Cross mobile medical-dental clinics starting out for their respective areas in Abitibi, Timiskaming and Gaspé to give free examinations and treatment in these isolated districts.*

municipal doctor plan has been developed, where a health unit employs a full-time doctor to serve the residents of the unit.

**Medical and Hospital Care.**—Free treatment is given to indigents, and in some cases, with respect to certain diseases such as tuberculosis, to all residents. In Alberta a maternity hospitalization service is provided by the Province. In Saskatchewan there is a Provincial Government prepaid hospitalization program, supported by an annual tax on each resident with a maximum payment for a family, which provides for hospital care, including operating room facilities, X-ray and other examinations. A similar program commenced in British Columbia on Jan. 1, 1949. The Newfoundland Government operates cottage hospitals in outport areas and in conjunction with these, medical and hospital care are provided upon payment of an annual fee. Private prepaid medical care and hospital insurance plans have been extensively developed throughout the country.

### *Non-Governmental Health Agencies*

In addition to many local and provincial health organizations, major national agencies are: the Canadian Red Cross, which has converted its war-time blood-donor system into a civilian blood bank and transfusion service; the Victorian Order of Nurses, with well-established home-nursing and maternity services; the Order of St. John, with its training and service in first aid, home nursing, and blood grouping; and the Canadian Tuberculosis Association, whose provincial branches conduct mass X-ray surveys and educational programs. The Health League of Canada sponsors educational and publicity work in health generally and the National Committee for Mental Hygiene operates similarly in its field. Recently the Department of National Health and Welfare co-operated with interested individuals and organizations in the establishment of two national health bodies, the National

Cancer Institute and the Canadian Rheumatism and Arthritis Society, for purposes of education, publicity and research.

## Statistics of Health Institutions

The Dominion Bureau of Statistics collects, through its Division of Health and Welfare, statistics concerning public and private hospitals, institutions for incurables, federal hospitals, tuberculosis institutions and mental institutions. The institutions reporting in 1947, by provinces, were as follows:—

### *Hospitals, by Types and Provinces, 1947*

| Type of Institution                         | P.E.I.   | N.S.      | N.B.      | Que.       | Ont.       | Man.      | Sask.      | Alta.      | B.C.           | N.W.T.    | Canada       |
|---|----------|-----------|-----------|------------|------------|-----------|------------|------------|----------------|-----------|--------------|
| Public.....                                 | 6        | 38        | 27        | 87         | 154        | 40        | 118        | 94         | 80             | 9         | 653          |
| Incurable.....                              | —        | —         | 1         | 3          | 10         | 1         | 2          | 2          | 3 <sup>1</sup> | —         | 22           |
| Private.....                                | —        | 8         | 4         | 53         | 47         | 6         | 39         | 19         | 35             | 1         | 212          |
| Federal.....                                | —        | 9         | 5         | 8          | 20         | 12        | 4          | 10         | 13             | 2         | 83           |
| Mental institutions <sup>2</sup> ....       | 1        | 16        | 1         | 8          | 17         | 4         | 3          | 5          | 4              | —         | 59           |
| Tuberculosis institutions <sup>3</sup> .... | 1        | 12        | 6         | 30         | 16         | 10        | 3          | 5          | 12             | —         | 95           |
| <b>Totals.....</b>                          | <b>8</b> | <b>83</b> | <b>44</b> | <b>189</b> | <b>264</b> | <b>73</b> | <b>169</b> | <b>135</b> | <b>147</b>     | <b>12</b> | <b>1,124</b> |

<sup>1</sup> Includes two branches of the Provincial Infirmary.

<sup>2</sup> Includes two federal hospitals.

<sup>3</sup> Includes 49 units in other hospitals.

In 1947 returns were received from 653 of the 669 public hospitals for acute diseases known to be in operation during the year. Of the reporting hospitals, which contained 98.7 p.c. of the total bed capacity, 515 had X-ray facilities, 356 had clinical laboratories and 262 had physio-therapy facilities. During the year 1,633,069 patients received treatment and the average cost per patient day was \$5.55. The number of salaried doctors in these hospitals increased by 4 p.c. over the previous year, graduate nurses by 10 p.c. and the number of student nurses and probationists enrolled by 6.6 p.c.

Of the 59 mental institutions in Canada in 1947, 41 were operated by the provinces, 14 were county or municipal hospitals, two were federal and two were private hospitals. At the end of the year they reported 54,703 patients under care, 50,203 of whom were in residence. Of the total under care, 75 p.c. were psychotic, 22 p.c. were mental defectives without psychosis, 2 p.c. were epileptics without psychosis and 1 p.c. had other types of mental disorder. Total revenues of these institutions amounted to \$27,614,385, 77 p.c. of which came from Provincial Governments, 1 p.c. from the Federal Government, 4 p.c. from municipal governments, 12 p.c. from paying patients and 6 p.c. from other sources.

The 95 tuberculosis institutions reporting in 1947 had 12,407 patients in residence at the end of the year, compared with 12,006 in 94 institutions at the end of 1946. Of the total revenue of \$13,594,708 received by these institutions in 1947, 64 p.c. came from Provincial Governments, 12 p.c. from federal grants, 10 p.c. from municipalities, 4 p.c. from patients and 10 p.c. from other sources. Much work has been done in recent years by the Provincial Boards of Health in the fight against tuberculosis. In 1947 the total number of examinations made by tuberculosis clinics and mass surveys was 2,003,699, an increase of 438,445 over the number reported in 1946.

The numbers of beds in the different types of institution, by provinces, and per 10,000 population are given in the following table.

## Hospital Beds in Reporting Hospitals and Hospital Beds per 10,000 Population, by Provinces, 1947

NOTE.—Rates are based on population figures shown on p. 43.

| Province or Territory             | Acute Diseases Hospitals <sup>1</sup> | Tuber- culosis In- stitutions <sup>2</sup> | Mental In- stitu- tions <sup>3</sup> | Incurables   | Private Hospitals | All Hospitals  |
|-----------------------------------|---------------------------------------|--|--------------------------------------|--------------|-------------------|----------------|
| <b>TOTAL BEDS<sup>4</sup></b>     |                                       |  |                                      |              |                   |                |
| P.E.I.....                        | 453                                   | 145  | 250                                  | —            | —                 | 848            |
| N.S.....                          | 2,793                                 | 1,141                                      | 2,603                                | —            | 42                | 6,579          |
| N.B.....                          | 2,195                                 | 958  | 900                                  | 85           | 100               | 4,238          |
| Que.....                          | 14,877                                | 4,044                                      | 13,845                               | 114          | 1,081             | 33,961         |
| Ont.....                          | 15,209                                | 4,023                                      | 15,864                               | 1,643        | 848               | 37,587         |
| Man.....                          | 3,480                                 | 1,153                                      | 2,471                                | 425          | 105               | 7,634          |
| Sask.....                         | 4,126                                 | 803  | 3,670                                | 224          | 146               | 8,969          |
| Alta.....                         | 5,009                                 | 787  | 2,538                                | 145          | 140               | 8,619          |
| B.C.....                          | 5,584                                 | 1,301                                      | 3,039                                | 329          | 780               | 11,033         |
| Yukon and N.W.T...                | 339                                   | —  | —                                    | —            | 17                | 356            |
| <b>Canada.....</b>                | <b>54,065</b>                         | <b>14,355</b>                              | <b>45,180</b>                        | <b>2,965</b> | <b>3,259</b>      | <b>119,824</b> |
| <b>BEDS PER 10,000 POPULATION</b> |                                       |  |                                      |              |                   |                |
| P.E.I.....                        | 48                                    | 15   | 27                                   | ...          | ...               | 90             |
| N.S.....                          | 45                                    | 18   | 42                                   | ...          | —                 | 105            |
| N.B.....                          | 45                                    | 20   | 18                                   | 1            | 2                 | 86             |
| Que.....                          | 40                                    | 10   | 37                                   | —            | 3                 | 90             |
| Ont.....                          | 36                                    | 10   | 38                                   | 4            | 2                 | 90             |
| Man.....                          | 46                                    | 15   | 33                                   | 5            | 1                 | 100            |
| Sask.....                         | 49                                    | 10   | 44                                   | 2            | 1                 | 106            |
| Alta.....                         | 61                                    | 10   | 31                                   | 1            | 1                 | 104            |
| B.C.....                          | 54                                    | 12   | 29                                   | 3            | 7                 | 105            |
| Yukon and N.W.T...                | 14                                    | ...  | ...                                  | ...          | 1                 | 15             |
| <b>Canada.....</b>                | <b>43</b>                             | <b>11</b>                                  | <b>36</b>                            | <b>2</b>     | <b>3</b>          | <b>95</b>      |

<sup>1</sup> Federal hospitals not included.

<sup>2</sup> Includes 34 sanatoria, 12 federal hospitals for tuberculosis only, 6 units in federal hospitals and 43 units in other hospitals.

two federal hospitals.

<sup>3</sup> Includes 2 federal hospitals.

<sup>4</sup> Bassinets for newborn not included.

## ★ Welfare Services

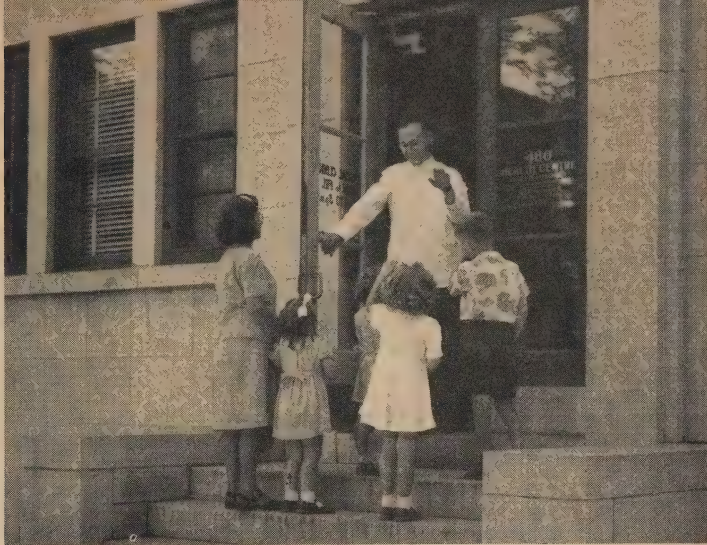
In recent years there has been considerable growth in the extension and co-ordination of municipal, provincial and voluntary welfare services in Canada, as well as notable progress in the development of a nation-wide social security program.

Traditionally and historically, social welfare in Canada developed as a local responsibility, with the municipalities deriving their powers from the provincial authority. Over the past two or three decades, however, economic and social developments, together with rising standards of public welfare, have thrust into provincial and federal areas of jurisdiction an increasing measure of responsibility. Although the municipalities continue to carry substantial welfare burdens, Provincial Governments have undertaken to provide services for special groups, financial assistance to municipal welfare programs, aid in co-ordinating local services and encouragement of improved standards of service.

With the exception of old age pensions, which were introduced in 1927, the trend towards greater federal responsibility began during the pre-war depression decade in the fields of unemployment relief, agricultural relief and other financial aid to the provinces. A national system of contributory unemployment insurance was introduced in 1940, the National Physical Fitness Grant Program in 1943 and family allowances in 1944.



Children visiting a health centre for a dental check-up. Most provinces have secured grants under Canada's National Health Program for projects in dental public health.



On the administrative side, each province has a permanent public welfare service, either as a separate department or jointly with its Department of Health, to operate provincial services and exercise supervisory authority over welfare programs, both public and private.

### *Federal Welfare Services*

The creation of the Department of National Health and Welfare (8 Geo. VI, c. 22, 1944) brought into being for the first time a Federal Government service in which matters of welfare are a prime responsibility. The main functions of that Department in the field of welfare are: the promotion of social security and social welfare of the people of Canada; investigation and research; the preparation and distribution of information on social and industrial conditions affecting the lives and health of the people; co-operation with provincial authorities with a view to co-ordination of efforts in the welfare field. The Welfare Branch administers Family Allowances, Old Age Pensions and Pensions for the Blind, and the National Physical Fitness Program. Other welfare services are administered by the Department of Labour, the Unemployment Insurance Commission, the Department of Mines and Resources and the Department of Veterans Affairs.

**Family Allowances.**—The Family Allowances Act, 1944, was introduced to provide more equal opportunity for the children of Canada. The allowances are paid monthly to parents (to mothers, except in unusual circumstances) and must be spent exclusively for the maintenance, care, training, education and advancement of the child.

In general, each child under sixteen years of age, including Indians and Eskimos, is eligible for an allowance. Such a child must be registered for the allowance and be maintained by a parent, as defined in the Act. For registration purposes the child under the age of 16 years must reside in Canada and, in addition, must have been born and resident since birth in

Canada or have lived in Canada for one year preceding registration. Residence provisions do not apply to children born to parents domiciled in Canada but temporarily out of the country. The allowance is not payable to a child who fails to attend school according to the laws of the province in which he resides or fails to obtain equivalent education.

The allowances, which are tax free, are paid by cheque at the following rates: children under 6 years of age, \$5; children from 6-9 years of age, \$6; children from 10-12 years of age, \$7; and children from 13-15 years of age, \$8.

Current disbursements under the Family Allowances Act are running at the rate of \$298,000,000 per annum.

### *Family Allowances Statistics, by Provinces, August, 1949*

| Province or Territory                | Families to Whom Allowances were Paid | Total Children   | Average Allowance per Family | Average Allowance per Child | Total Allowances Paid, August, 1949 |
|--------------------------------------|---------------------------------------|------------------|------------------------------|-----------------------------|-------------------------------------|
|                                      | No.                                   | No.              | \$                           | \$                          | \$                                  |
| Newfoundland.....                    | 49,756                                | 135,296          | 16.44                        | 6.05                        | 818,071                             |
| Prince Edward Island.....            | 13,116                                | 33,112           | 15.32                        | 6.07                        | 200,919                             |
| Nova Scotia.....                     | 89,990                                | 210,836          | 14.14                        | 6.03                        | 1,272,132                           |
| New Brunswick.....                   | 71,643                                | 185,243          | 15.54                        | 6.01                        | 1,113,130                           |
| Quebec.....                          | 496,881                               | 1,320,670        | 16.03                        | 6.03                        | 7,963,280                           |
| Ontario.....                         | 587,824                               | 1,166,920        | 12.03                        | 6.06                        | 7,070,580                           |
| Manitoba.....                        | 103,625                               | 216,557          | 12.62                        | 6.04                        | 1,308,200                           |
| Saskatchewan.....                    | 116,490                               | 261,191          | 13.65                        | 6.09                        | 1,589,744                           |
| Alberta.....                         | 127,147                               | 273,905          | 13.02                        | 6.05                        | 1,656,105                           |
| British Columbia.....                | 151,165                               | 289,449          | 11.47                        | 5.99                        | 1,734,692                           |
| Northwest Territories and Yukon..... | 3,709                                 | 8,077            | 13.34                        | 6.13                        | 49,495                              |
| <b>Canada.....</b>                   | <b>1,811,346</b>                      | <b>4,101,256</b> | <b>13.68</b>                 | <b>6.04</b>                 | <b>24,776,348</b>                   |

**Old Age Pensions and Pensions for Blind Persons.**—The Old Age Pensions Act, passed by Parliament in 1927, provided for the payment of non-contributory pensions to persons 70 years of age or over who fulfilled certain requirements as to income, residence and nationality. An amendment to the Act, passed in 1937, provided for pensions for blind persons 40 years of age or over who fulfilled similar requirements.

Several amendments have since been made to the Act, the most important of these being made in 1947 and 1948. As the Act stands at present, the maximum income allowed to old age pensioners, including pension, is \$600 a year in the case of an unmarried pensioner and \$1,080 a year in the case of a married pensioner, with higher amounts for blind pensioners. Within the limits of the Act, each province is free to fix the maximum pension payable and the maximum income allowed. The Federal Government's contribution to any pensioner shall not exceed 75 p.c. of \$40 a month. In certain provinces old age and blind pensions are augmented by supplements, paid for entirely by the province. The qualifying age for old age pensioners remains at 70 years, while that for blind pensioners has been lowered to 21 years. Residence requirements have been relaxed by recent amendments and the requirement regarding nationality has been eliminated. The Department of National Health and Welfare is responsible for the federal administration of pensions paid under the Old Age Pensions Act.

## Summary of Old Age Pensions, by Provinces, as at June 30, 1949

| Province or Territory          | Total Pensioners | Average Monthly Pension <sup>1</sup> | Pensioners to Population 70 Years of Age or Over | Persons 70 Years of Age or Over to Total Population | Federal Government's Contribution since 1927 |
|--------------------------------|------------------|--------------------------------------|--|---|--|
|                                | No.              | \$                                   | p.c.   | p.c.  | \$   |
| Newfoundland.....              | 2,785            | 29.80                                | 22.11  | 3.91  | 182,511                                      |
| Prince Edward Island.....      | 2,770            | 26.42                                | 44.68  | 6.67  | 4,150,444                                    |
| Nova Scotia.....               | 18,779           | 30.24                                | 55.23  | 5.35  | 37,220,668                                   |
| New Brunswick.....             | 15,533           | 30.15                                | 69.04  | 4.47  | 27,793,180                                   |
| Quebec.....                    | 64,954           | 28.94                                | 51.43  | 3.33  | 123,529,591                                  |
| Ontario.....                   | 79,553           | 37.06                                | 34.75  | 5.33  | 201,556,165                                  |
| Manitoba.....                  | 15,787           | 37.86                                | 45.23  | 4.61  | 42,547,474                                   |
| Saskatchewan.....              | 15,808           | 37.12                                | 45.95  | 4.03  | 41,479,592                                   |
| Alberta.....                   | 15,277           | 32.23                                | 46.29  | 3.90  | 34,850,381                                   |
| British Columbia.....          | 26,219           | 29.29                                | 42.49  | 5.70  | 49,916,522                                   |
| Northwest Territories.....     | 20               | 28.75                                | 10.93  | 1.52  | 50,862                                       |
| <b>Canada<sup>2</sup>.....</b> | <b>257,485</b>   | <b>32.88</b>                         | <b>44.25</b>                                     | <b>4.52</b>   | <b>563,277,390</b>                           |

<sup>1</sup> Excluding provincial supplements which are paid for entirely by the provinces.

<sup>2</sup> Excluding Yukon.

## Summary of Pensions for Blind Persons, by Provinces, as at June 30, 1949

| Province or Territory          | Total Pensioners | Average Monthly Pension <sup>1</sup> | Pensioners to Total Population | Federal Government's Contribution since 1937 |
|--------------------------------|------------------|--------------------------------------|--------------------------------|--|
|                                | No.              | \$                                   | p.c.                           | \$   |
| Newfoundland.....              | 117              | 28.63                                | 0.126                          | 224,603                                      |
| Prince Edward Island.....      | 887              | 38.47                                | 0.140                          | 1,514,350                                    |
| Nova Scotia.....               | 1,011            | 38.85                                | 0.201                          | 1,771,997                                    |
| New Brunswick.....             | 3,600            | 29.68                                | 0.095                          | 5,838,477                                    |
| Quebec.....                    | 2,149            | 37.64                                | 0.050                          | 3,764,533                                    |
| Ontario.....                   | 508              | 38.55                                | 0.067                          | 851,646                                      |
| Manitoba.....                  | 452              | 38.78                                | 0.053                          | 810,684                                      |
| Saskatchewan.....              | 425              | 29.98                                | 0.050                          | 597,241                                      |
| Alberta.....                   | 593              | 29.31                                | 0.055                          | 841,223                                      |
| British Columbia.....          | 1                | 30.00                                | 0.008                          | 1,107  |
| Northwest Territories.....     | 1                | 30.00                                | 0.008                          | 1,107  |
| <b>Canada<sup>2</sup>.....</b> | <b>9,743</b>     | <b>34.05</b>                         | <b>0.076</b>                   | <b>16,215,861</b>                            |

<sup>1</sup> Excluding provincial supplements which are paid for entirely by the provinces.

<sup>2</sup> Excluding Yukon.

**Unemployment Insurance.**—In 1940, by an amendment to the British North America Act, the Federal Government was given complete jurisdiction in the field of unemployment insurance and since that time a national system of unemployment insurance administered by the Unemployment Insurance Commission has been in operation. (*See Labour Chapter.*)

**Physical Fitness.**—A program of fitness and recreation for Canada was introduced with the proclamation on Oct. 1, 1943, of the National Physical Fitness Act. Under that Act, a National Council was established to promote the well-being of the people of Canada through physical fitness and recreational activities. The Council, set up on Feb. 15, 1944, is an advisory body appointed by the Governor General in Council, which meets twice each year to discuss the over-all program, and to advise the Minister of National



Health and Welfare on various aspects of it. In some provinces, provincial fitness councils function on lines comparable to the National Council.

The Act is administered by the Department of National Health and Welfare whose Physical Fitness Division acts as a clearing-house among the provinces for the latest information on fitness, recreation, community centres, physical education, sports and kindred activities.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$225,000 annually for the promotion of physical fitness and recreational projects. Special provision has also been made for an additional \$7,000 to be made available for Newfoundland should that Province choose to participate. Financial assistance is given only to those provinces that have signed specific agreements with the Federal Government, such provinces receiving their share to the extent to which they match it dollar for dollar.

| Province    | Maximum<br>Financial<br>Grant<br>Available<br>Annually | Expiry<br>Date of<br>Agreement | Province    | Maximum<br>Financial<br>Grant<br>Available<br>Annually | Expiry<br>Date of<br>Agreement |
|-------------|--|--------------------------------|-------------|--|--------------------------------|
|             | \$   |                                |             | \$   |                                |
| Nfld .....  | 7,000  | No agreement                   | Man. ....   | 14,270   | Mar. 31, 1950                  |
| P.E.I. .... | 1,859  | Mar. 31, 1950                  | Sask. ....  | 17,521   | Dec. 31, 1953                  |
| N.S. ....   | 11,302   | Mar. 31, 1950                  | Alta. ....  | 15,568   | Mar. 31, 1951                  |
| N.B. ....   | 8,944  | Mar. 31, 1952                  | B.C. ....   | 15,993   | Mar. 31, 1950                  |
| Que. ....   | 65,151   | No agreement                   | N.W.T. .... | 234  | Mar. 31, 1952                  |
| Ont. ....   | 74,063   | Mar. 31, 1950                  | Yukon. .... | 97   | No agreement                   |

**Welfare of Indians and Eskimos.**—The Indian Affairs Branch of the Department of Mines and Resources is responsible for the welfare of the Indians of Canada. The Branch, in co-operation with the Family Allowances Division of the Department of National Health and Welfare, administers the payment of family allowances to those Indians who are paid in kind.

The Commissioner in Council of the Northwest Territories and the Elective Legislative Council of the Yukon Territory, are responsible for the health and welfare of indigent white and half-breed persons in their respective areas. These authorities act through the Northwest Territories and Yukon Services of the Department of Mines and Resources which, in co-operation with the Family Allowances Division of the Department of National Health and Welfare, supervise the payment of family allowances to the Eskimos of Canada.

**Canadian Government Annuities.**—The Canadian Government Annuities Act was passed in 1908 to authorize the issue of Government Annuities, the purpose being to encourage and aid Canadians to make provision for old age. Any resident of Canada may purchase a Canadian Government Annuity up to \$1,200, payable for life only, or for life with a guarantee period of 5, 10, 15 or 20 years, or for the lives of joint annuitants with continuation to the survivor. Immediate annuities may be purchased in a lump sum and are payable immediately. Deferred annuities are usually bought by employed persons and are purchased by payment of periodic premiums or a single premium, and are payable on retirement.

Annuities may be purchased under individual contracts or by members of groups under group contracts. A group contract is generally an agreement



*Child health clinics are conducted in almost every community across the country.*

with an employer to implement a retirement plan approved by the Minister of Labour, the purchase money being, as a rule, derived jointly from the employer contributions and deductions from wages.

On Mar. 31, 1949, annuity income of \$20,847,452 was payable under 48,064 contracts. The number of deferred annuities being purchased by individuals privately was 80,583. The number of group contracts was 809 covering 113,645 registered employees. The balance at credit of the Annuities Fund was \$501,737,659.

Local offices are maintained in 41 centres throughout Canada to advise the public regarding the purchase of Canadian Government annuities.

**Dependants' and Veterans' Allowances.**—Allowances paid to veterans' dependants and to certain non-pensionable veterans are dealt with under Veterans Affairs, p. 76.

### *Provincial Welfare Services*

The field of provincial welfare work is a very wide one. It includes homes for the aged and infirm, children's aid societies, reformatories, day nurseries, homes for juvenile delinquents, training schools for mentally defective children, psychiatric services and industrial schools. These are, in some

provinces, maintained solely by provincial funds, in others by municipal, public or joint municipal and provincial funds. The Provincial Governments also supervise the institutions operated by cities, counties, districts and religious and benevolent societies, provide mothers' allowances and other social services and, in co-operation with the Federal Government, provide old age pensions and pensions for the blind (*see* pp. 68-69).

**Mothers' Allowances.**—All provinces except Newfoundland provide allowances to certain needy mothers who are widowed or who, for other reasons, are without means of support. On Oct. 21, 1949, the Newfoundland Legislature gave third reading to a Mothers' Allowance Bill, which will become effective on proclamation. Except in Alberta, where 25 p.c. of the allowance is borne by the municipality, the whole cost is paid from provincial funds. The Acts of the respective provinces stipulate that the applicant must comply with certain conditions at the time of application.

In all provinces the exact amount granted is determined by the administrative authorities after consideration of the circumstances in each case. In Prince Edward Island, the maximum monthly allowance is \$25 for a mother and one child and \$50 for a family. Nova Scotia has no set maximum for a mother and one child but the family maximum is \$80 per month. In New Brunswick the maximum allowance is \$27.50 per month for a mother and one child, and \$7.50 per month for each additional child. An additional \$7.50 per month may be granted for rent provided the monthly amount payable does not exceed \$60. In Quebec a mother with one child receives \$35 per month if living in a city or town of 5,000 or more, or \$30 per month if living elsewhere, with an extra \$5 a month for a mother physically unable to work and for a disabled husband living at home. An additional monthly payment of \$1 each is made for the second, third, fourth and fifth child, \$2 each for the sixth and seventh, and \$3 for each subsequent child. In Ontario the maximum rate for mother and child is \$50 per month, with \$10 for each additional child and for a disabled husband in the home. A fuel allowance is granted and an additional \$10 per month per beneficiary may also be paid where need is evidenced. Manitoba pays a maximum monthly allowance of \$48 for a mother and one child, with additional allowances for subsequent children and a disabled father in the home. The maximum monthly allowance, excluding winter fuel, granted to any family, with or without the father in the home, is \$137. In Saskatchewan the maximum yearly allowance payable for a mother and one child is \$300, increasing to \$900 for a mother and ten children; \$10 a month is granted for a disabled husband living at home and supplementary aid may be provided under the Social Assistance Program. Alberta pays a maximum of \$35 per month for a mother and child, with the amount rising to \$100 for a mother and nine children. Supplementary assistance, up to \$10 monthly may be granted in special cases. In British Columbia the maximum amount which may be paid is \$50 per month for a mother with one child and \$8.50 for each additional child and for an incapacitated husband in the home; supplementary aid to meet emergency expenses may also be given.

**Workmen's Compensation.**—For accidents occurring in the course of employment, compensation is payable to workers in accordance with the law of each province or, in fatal cases, to their dependants. In all provinces, except Newfoundland, the entry cost of compensation and medical aid is



borne by employers through a collective liability scheme administered by the province. Newfoundland has an individual liability system whereby the employer is liable to pay compensation. In certain cases, the courts may be asked to decide whether or not the employer must pay.

Monthly pensions at a fixed rate are paid to widows and children; injured workmen receive two-thirds of their earnings (three-quarters in Saskatchewan and Ontario) during total disablement, but the maximum amount of earnings taken into account is \$2,500 in Nova Scotia, New Brunswick, Quebec, Manitoba, Alberta and British Columbia and \$3,000 in Saskatchewan and Ontario. In Newfoundland, machinery is provided in the law to fix payment.

**Dependent and Handicapped Groups.**—The work of the various institutions and agencies for the care of dependent and handicapped groups may be classified under two main headings: the care of adults and the care of children.

Latest data show that at June 1, 1946, there were 16,302 adults under care. Of these, 1,043 were between the ages of 21 and 30 years; 1,617 between 30 and 50 years; 1,369 between 50 and 60 years; and 12,273 were 60 years or over. Forty per cent were supported from charitable and private funds. In regard to mental and physical condition, 1,794 were either blind,

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*Pupils of the School for Crippled Children at Montreal board a bus which will return them to their homes. Buses for this purpose have been donated by many Montreal charity organizations.*



deaf and dumb, or crippled, while 1,826 were feeble-minded or subnormal, and 1,183 were epileptic, incurable or insane.

At the same date, there were under care 30,317 children under 20 years of age, of which number 5,926 were in homes for adults and children, 11,754 in orphanages, 583 in day nurseries, and 12,054 in children's aid societies.

### *Other Welfare Services*

There are in existence many voluntary organizations whose efforts are directed to social welfare. The Canadian Welfare Council, a national association of public and private agencies, provides a means of co-operative planning and action by serving as a link between voluntary agencies and between public and voluntary agencies. Specialized organizations, such as the Canadian National Institute for the Blind, which functions in every field of welfare for the blind, and the Canadian Council of the Blind, occupy somewhat similar roles in their particular fields. The various Community Chest organizations and service clubs assist welfare work by helping to finance local organizations, and the work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations in what may be described as preventive rather than curative work cannot be overlooked. Day nurseries prove invaluable to many mothers who are obliged to work. Most of the activities of these organizations are not susceptible to statistical measurement. The Canadian Red Cross, the Victorian Order of Nurses, and the Order of St. John perform many welfare services, though they are more properly designated as public health organizations.

### *★Veterans Affairs*

The Department of Veterans Affairs was established in October, 1944, to administer the legislation concerning the re-establishment of ex-service men and women in civilian life. The peak of the Department's work was reached in 1946, since demobilization of approximately one million men and women who served in the Armed Forces of Canada was almost entirely completed during that year. The Department has an organization extending from Charlottetown to Victoria, including hospitals in all the large centres. Close liaison is maintained between the Department of Veterans Affairs and other federal and provincial departments and community organizations. Approximately one-half of the staff has been engaged in providing adequate medical treatment and care for the thousands of eligible veterans requiring it. The remainder of the staff has dealt with the various other branches: the Veterans' Land Act Administration; the Veterans Welfare Branch; the Canadian Pension Commission; the War Veterans Allowance Board; General Administration; etc.

Certain of the legislation passed for the assistance of veterans has served its purpose and has been dropped. Continuing legislation is outlined below.

**Treatment Regulations.**—The majority of veterans receive treatment under five of the twelve classifications contained in these regulations.



*Libraries are popular with hospitalized veterans. Sunnybrook patients have their own library of 3,000 books and may also borrow from the city-wide system's 500,000 volumes.*



Class I provides treatment for pensioners for their pensionable disability. If hospitalized, the veteran receives the equivalent of 100 p.c. pension rate less \$15 per month, and if an out-patient, the equivalent of 100 p.c. pension rate.

Class II\* provides treatment shown to be required at the time of discharge. Such treatment must be commenced generally within thirty days following discharge and may be continued for the period of a year, or the period of service if less than a year, with allowances equal to the pay and allowances of rank in effect at the time of discharge. If pension entitlement has been granted, treatment may be continued to finality.

Class III\* provides treatment for veterans for any disability not a result of misconduct arising during the year following their discharge. While receiving such treatment, monthly allowances of: single \$50, married \$70, plus allowances for dependants, may be paid.

Class V provides treatment for the remainder of their lives for veterans with meritorious service and pensioners, where it is shown that the veteran is unable to afford the treatment required. No allowances are paid except, where necessary, a "comforts and clothing" allowance.

Class VI provides domiciliary care for totally disabled aged veterans who require some one to look after them, but who do not require active treatment.

Veterans are also entitled to any dental treatment required during the year following discharge. They are provided, free of charge, with prosthetic appliances which they require and these appliances are serviced and renewed for life.

The general policy with regard to post-discharge treatment is designed to provide the best possible professional medical and surgical care for veteran patients. The peak of the load was reached in the spring of 1946 and since then a large proportion of the Armed Service hospitals taken over to meet the peak has been closed and a permanent building program undertaken, much of which will not concern beds but rather ancillary services essential for adequate investigation, diagnosis and treatment.

**Veterans' Rehabilitation Act.**—Under this legislation considerable numbers of veterans have been given the opportunity to resume schooling

\* Treatment in this class is ended in practically all cases, due to the time elapsed since the War.



interrupted by war service and to upgrade their abilities in almost every field of business and professional endeavour. Training allowances as well as academic fees were paid under the Act, which also provided for allowances to veterans temporarily incapacitated, those awaiting returns from new farms and businesses, and veterans lacking employment in the first eighteen months after discharge. The majority of these allowances have now ceased, except for those to veterans still studying at Canada's universities under the rehabilitation plan, and those whose applications for vocational training came late in 1948. Awaiting returns allowances may be made available to veterans settled on farms under the Veterans' Land Act at any time within one year after their establishment. Provision is also made for certain disabled pensioners and veterans in hospital whose training has been necessarily postponed.

**War Service Grants Act.**—This Act provides for gratuities and re-establishment credits for veterans, and these are calculated on length, type and category of service. Payment of war service gratuities has been made to more than 950,000 ex-service men and women, virtually completing this portion of the program. However, re-establishment credits, which are in effect additional gratuities expended on the veterans' behalf only for certain approved purposes, may be used at any time within ten years after the date of discharge or cessation of hostilities (Dec. 31, 1946, under this Act), whichever is the later, provided alternative rehabilitation benefits have not been obtained. The average re-establishment credit is approximately \$400.

**The Pension Act.**—Under this Act pensions are paid to veterans as a compensation for loss or lessening of normal abilities incurred during service. The 100 p.c. pension rates per annum for ranks equivalent to captain (military) or lower are: man, \$1,128; wife, \$372; first child, \$228; second child, \$180; each subsequent child, \$144; widows, \$900. Higher rates are in effect for higher ranks. Pensions vary from 5 p.c. to 100 p.c. based on assessed percentage of disability. The insurance principle applies for service in Canada and overseas. Under this principle the disability need not be directly a result of service duties.

The Canadian Pension Commission examines the final medical report of each discharged member of the Forces. If a disability is found on discharge a decision on pension entitlement is rendered. Adequate provision exists for the review of unfavourable decisions, and veterans may have the assistance of the Veterans' Bureau in preparing and presenting such claims for review at no cost to the veteran.

**War Veterans' Allowance Act.**—Veterans become eligible for an allowance under this Act when they reach the age of 60 or, due to physical or economic reasons, or a combination of both, become incapable of supporting themselves before reaching that age. The age limit for widows of veterans who might have qualified is 55. To qualify, veterans must have served with the Canadian Forces in a theatre of war, or on active service with the Canadian Forces in two wars. The maximum annual allowances are: single \$480, married \$840. Reductions in these allowances are made for other income.

**Veterans' Land Act.**—This Act offers three main types of assistance to qualified veterans for settling on the land: full-time farming; small holdings in connection with industrial or other employment; or small holdings in

connection with commercial fishing. Maximum assistance allowed is \$6,000, of which up to \$1,200 may be spent for stock and equipment. The veteran pays down 10 p.c. of the cost of land, buildings and permanent improvements, and contracts to repay two-thirds of that cost over a period of not more than twenty-five years at  $3\frac{1}{2}$  p.c. interest. The remainder of the cost becomes a grant from the Federal Government but may not be realized until the veteran has satisfactorily fulfilled the terms of his contract for at least ten years.

The Act also contains provision for assistance to veterans settling on provincial Crown lands and Indian Reserves, and to veterans holding farms under lease or by agreement of sale. There is also provision for fully repayable loans at  $3\frac{1}{2}$  p.c. interest to veterans who own their own farms.

**The Veterans' Business and Professional Loans Act.**—This Act enables veterans to obtain loans through the chartered banks up to a maximum of \$3,000 at not more than 5 p.c. interest for business or professional purposes. The amount of the loan may not exceed two-thirds of the total amount to be invested in the business. The banks follow normal lending practices, but the Government guarantees each individual bank at the rate of 25 p.c. on any loss incurred on the first million dollars lent by each bank, and 15 p.c. on loans in excess of the first million dollars. The total amount of loans by all banks to which such guarantee extends is \$25,000,000.

**The Veterans Insurance Act.**—This Act makes Government life insurance available to veterans at cost as low as that of most standard companies and in most cases without medical examination. It is available in multiples of \$500 up to a maximum of \$10,000. It may be applied for within six years of discharge or Feb. 20, 1945, whichever date is later.

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*Valley View near Kamloops, B.C., a Veterans' Land Act subdivision.*





*Students on a class promenade*



# Education Scientific Research

## ★*Education*

CANADA'S constitution assigns public education, except for that of the native Indians, to the jurisdiction of each of the ten provinces. While the systems vary in particulars the general plan is the same except that in Newfoundland the schools are denominational and the Catholic schools of Quebec follow more closely the system of France.

Provincial administration is under a separate department of government headed by a Minister responsible to the legislature. The local administrative units which hire the teachers and operate the schools are elected by the ratepayers or, in some cases, appointed by a local municipal council. Practically all the necessary funds come from local direct taxation and provincial grants. The Federal Government contributes towards the cost of scholarships, youth training and vocational education including apprentice-ship and technical education.

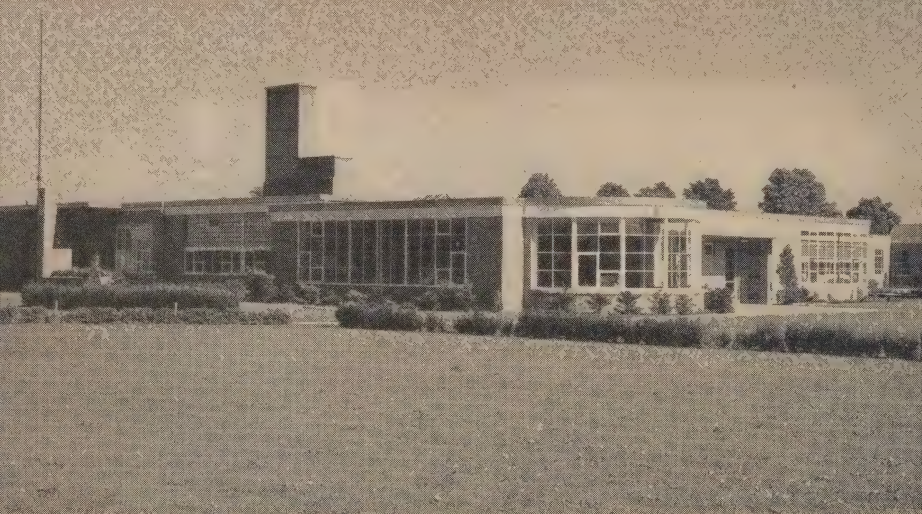
**Elementary and Secondary Education.**—The elementary school includes the first eight grades and the secondary school course extends for four years more (five years in British Columbia and Ontario) to university entrance. In most provinces grades seven to nine are designated intermediate or junior high school and given a broadened curriculum. Diversification in courses and subjects begins in the secondary grades and varies considerably between provinces. Quebec has the highest degree of diversification and specialization of schools. In Western Canada a variety of subjects are options in the general course. Teachers are trained in provincial normal schools and universities and are licensed by the provinces. A certificate valid in one province is not valid in another.

Canadian education like any dynamic system is changing in several ways and is faced with a number of major problems.

Enrolments are increasing. The increased birth rates of the war years have already shown up in the beginning grades and Family Allowances have had the effect of keeping pupils in school longer. On the basis of births it is estimated that total enrolment in the elementary and secondary schools of the ten provinces will reach 3,100,000 by 1960 as against 2,200,000 actual enrolment in 1947: and the effects of immigration and other current trends may easily raise the increase to as much as 1,000,000 or 1,250,000 pupils. This means an increase of over 50 p.c. in thirteen years and presents serious problems in teacher supply, building requirements and financial needs.

Ontario has announced the adoption of a 3-3-3-4 grade system\* to be introduced progressively. This means that all provinces except Newfoundland

\*More properly described as an organization of the curriculum into Primary (Grades I to III), Junior (Grades IV to VI), Intermediate (Grades VII to IX) and Senior (Grades X to XIII).



*A new public school, typical of those being built in rapidly growing suburban districts.*

and Prince Edward Island have adopted the 6-3-3 grade system\* or a modification thereof. The courses in the intermediate grades are exploratory and are designed in part to make for a smoother transition from the elementary grades to the senior ones and in part to facilitate meeting the needs of that large body of students (60 p.c.) who do not go beyond Grade IX. In Nova Scotia and New Brunswick the new regional rural high schools are extended downward to include the intermediate grades thereby relieving the one-room rural schools of all pupils above Grade VI.

Composite high schools for rural areas are increasing in number in almost all provinces. These schools are being planned to provide not only the general academic course leading to university but also home economics and agriculture courses suitable for rural children and commercial and industrial courses according to the needs of the locality.

There is a growing demand for a closer relationship between the schools and the economic needs of the community and for an increase in the number of vocational subjects offered, particularly outside the large cities. Since relatively few pupils (33 p.c.) extend their education beyond Grade X something more suited to their needs should be provided for the other 67 p.c. This problem is deemed so important that the Canadian Education Association has set up a research committee on practical education with strong advisory committees in each province. These committees are made up of representatives of education, the home, industry, commerce, agriculture and labour. The aim is a nation-wide survey of practical secondary education.

Technical institutes are being established in three provinces to meet the need for advanced vocational training at the senior secondary and junior college level. In some cases these schools will provide training centres for vocational teachers.

\*Essentially an organization of the curriculum into Elementary (Grades I to VI), Intermediate (Grades VII to IX), and Senior (Grades X to XII—Grade XIII in British Columbia). Physical division, where it occurs, is usually between elementary and high school either at the end of Grade VI or Grade VIII.



As a natural result of the increasing enrolments, increased holding power and diversification and extension of subjects and courses, there is a tremendous expansion in building. This is accentuated, particularly at the elementary school level, by the back-log of required building from the war years. Twenty-nine larger centres report having spent \$27,000,000 on buildings and equipment in less than two years and have projected expenditures for the next five years of \$59,000,000.

The heavy cost of this building program added to the high cost of operation has greatly increased the burden of local taxation for education purposes. Between 1941 and 1946 the cost per capita of elementary and secondary education increased 65 p.c. The provinces have assisted by markedly increasing grants to school boards so that the total for Canada now amounts to one-third the cost of operating the schools.

**Indian Education.**—The Indian Affairs Branch of the Department of Mines and Resources operates day and residential schools in all the provinces of Canada and in the Northwest Territories and Yukon.

The total enrolment in these schools has now reached 22,000 children and there are also nearly 1,000 children enrolled in the elementary grades of provincial schools. There are nearly 400 children now enrolled in secondary schools of various kinds and 300 in high-school grades of Indian schools.

The main feature of academic progress has been the erection of many new day schools. In all, nearly 90 new classrooms were added to the school system during 1948 and it is expected that a similar number will be added in 1949.

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*High School at Fredericton, N.B.*







Library period in  
an elementary  
school.

A larger number of qualified teachers have been employed in these Indian schools mainly due to increased benefits in the form of higher salaries and superannuation privileges. The policy of the Department is to gradually eliminate all non-qualified teachers from its day schools. It is felt that Indian children must receive the benefits accorded to other children in the provincial schools and this can best be granted by the continued improvement in the type of teachers employed.

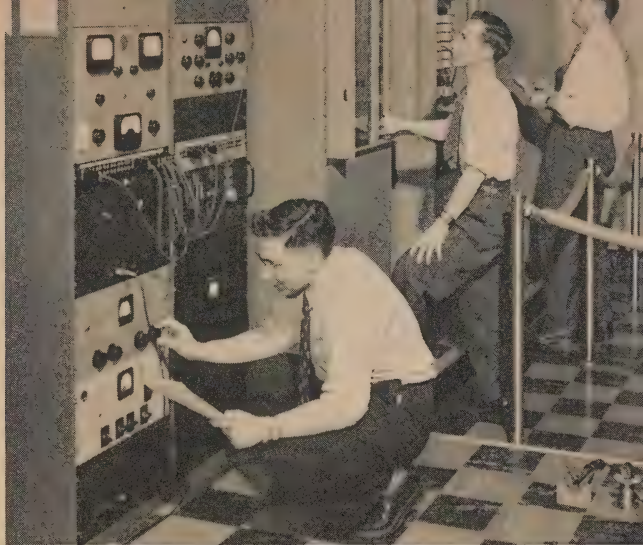
**Higher Education.**—Full-time enrolment of undergraduates in Canadian universities and colleges has been about 80,000 in each of the past two years. This is more than double the number in pre-war years. The increase is largely due to the financial assistance provided by the Government to war veterans as part of its rehabilitation program. Reduction in the number of students, except in advanced or post-graduate courses, is to be expected in the academic year 1949-50 and succeeding years.

Expenses of the universities, like their enrolments, have doubled. Reductions per student that might have been expected due to larger classes have in the main been offset by higher costs. Government grants and income from endowment funds have not kept pace with the increased costs, and increases in student fees have consequently been general in the past two years. They have become a matter of such importance that an increasing proportion of families, especially those living at a distance from university centres, may be unable to afford university education for their children. A recent sampling of the costs to single students of a year at university shows \$900-\$1,200 in arts and science and more in such professional courses as medicine and dentistry. Various organizations have been proposing a system of national scholarships so that the ablest matriculants would be assured an opportunity to attend university regardless of cost or family circumstances.

The National Conference of Canadian Universities is asking also for direct annual grants to the universities, on the basis of number of students in professional faculties such as medicine, dentistry, agriculture and forestry,

The development of intricate technological processes in industry has created a demand for personnel with advanced technical education on a level between the high school and the university. Such training gives to the pupil a working knowledge of the hand skills required as well as a sound background of the underlying principles involved in the industrial process at which he is employed.

The illustrations show pupils at work in the highly specialized field of electronics, in furniture design and in costume design—three of the many courses available—which will qualify them, as technicians, for posts of responsibility in the industrial or business world.







*A denominational rural school, which also serves as a church, near St. John's, Newfoundland.*

for which operations are most costly. This would be, in effect, a continuation on behalf of all students in these faculties, of the practice that has been followed on behalf of veteran students.

Most of the universities in the past three years have conducted campaigns for voluntary subscriptions to their building or endowment funds, and new building has been in progress on several of the campuses. It is doubtful, however, whether the increase in endowment funds will be sufficient to restore the income from that source to its former relative importance in university finance. In the 1920's endowments contributed between 15 p.c. and 20 p.c. of income but in 1947 and 1948 their yield was down to 6 p.c. or 7 p.c.

**Adult Education.**—In the post-war years increased attention has been given to adult education. For many years there have been night classes in the publicly controlled schools of cities, mainly vocational or avocational in nature. The recent trend has been to encourage a much wider variety of use of the schools on the part of adults, and to extend such uses to smaller communities. The school has in numerous cases become a community centre, in which social and recreational needs, as well as educational in the narrower sense, are being met. The variety of courses offered has at the same time increased. Although there is no significant problem of adult illiteracy, an important activity in many communities has become the provision of language and citizenship classes for the post-war immigrants from Europe. University extension departments continue to be an important factor in adult education, in some provinces more than in others. So also with voluntary organizations.

The Canadian Association for Adult Education, through the medium of its monthly publication, its Joint Planning Commission, and in other ways, remains the chief 'clearing house' for ideas among adult workers in English-language education. The post-war years have witnessed the development of a similar organization for French-language workers, La société canadienne d'enseignement postscolaire, with headquarters at Laval University, Quebec City.

"In almost every country in the world adult education has grown from obscurity to the position of a third partner along with higher education and the public schools", says a publication of the Canadian Association for Adult Education. While this is particularly the case in countries with a serious problem of adult illiteracy, there is growing recognition of the need in democracy for continuing citizenship education for the entire population. The programs of the two adult education associations are based on this recognition, and both have the collaboration of the Canadian Citizenship Council.



## Summary Statistics of Education, Academic Year 1946-47

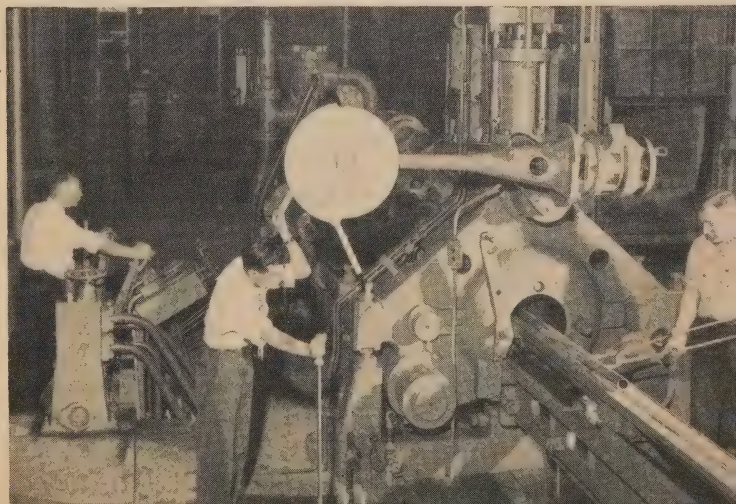
| Type of School or Course                  | Institutions     | Pupils           | Teachers      | Expenditures           |
|---|------------------|------------------|---------------|------------------------|
|   | No.              | No.              | No.           | \$                     |
| Provincially Controlled Schools—          |                  |                  |               |                        |
| Ordinary and technical day schools . . .  | 30,844           | 2,067,242        | 77,371        | 222,000,493            |
| Evening schools . . . . .                 | 420 <sup>1</sup> | 100,838          | ...           | 598,370 <sup>2</sup>   |
| Correspondence courses . . . . .          | 9 <sup>1</sup>   | 43,919           | ...           | 835,957                |
| Special schools . . . . .                 | 21               | 5,289            | 499           | 2,803,111              |
| Normal schools . . . . .                  | 97               | 8,731            | 945           | 2,872,772              |
| Privately Controlled Schools—             |                  |                  |               |                        |
| Ordinary academic schools . . . . .       | 779              | 100,025          | 5,601         | } 11,954,669           |
| Business training schools . . . . .       | 255              | 38,800           | 1,078         |                        |
| Dominion Indian Schools . . . . .         | 347              | 19,622           | 381           | 3,641,404 <sup>3</sup> |
| Universities and Colleges—                |                  |                  |               |                        |
| Preparatory courses . . . . .             | 34               | 26,169           | 1,733         | } 45,400,160           |
| Courses of university standards . . . . . | 164              | 109,430          | 8,697         |                        |
| Other courses . . . . .                   | ...              | 30,984           | ...           |                        |
| <b>Totals . . . . .</b>                   | <b>32,541</b>    | <b>2,551,049</b> | <b>96,305</b> | <b>290,106,936</b>     |

<sup>1</sup> Omitted from total. Evening classes are conducted in day schools and correspondence courses by provincial departments of education. <sup>2</sup> British Columbia and Ontario only; included with day schools in other provinces. <sup>3</sup> Fiscal year ended Mar. 31, 1948.

### ★Scientific Research

While scientific research is carried on by many different agencies in Canada, there is a close co-ordination of effort which not only results in measurable economies being effected, but ensures that no important fields of activity are overlooked. Scientists are seekers after truth, and nothing is more to their liking than to have full and free discussion of difficult research problems by all who are in a position to make a useful contribution on the subject.

Opportunities to this end are afforded through meetings of scientific and engineering societies and various specialist gatherings convened to consider highly technical subjects. Continuity of effort in this direction is often secured through the appointment of Committees by such organizations as the National Research Council, the Defence Research Board, and the Fisheries Research Board, to name only three.



Seamless copper tubing being extruded from the 750-ton press in the Federal Bureau of Mines Metal-Forming Laboratory.

*National Research Council Laboratories, Montreal Road, east of Ottawa. This group includes the aeronautic, hydraulic, structures, low-temperature, engine, gasoline and oil, building research and general engineering laboratories and the wood- and metal-working shops.*

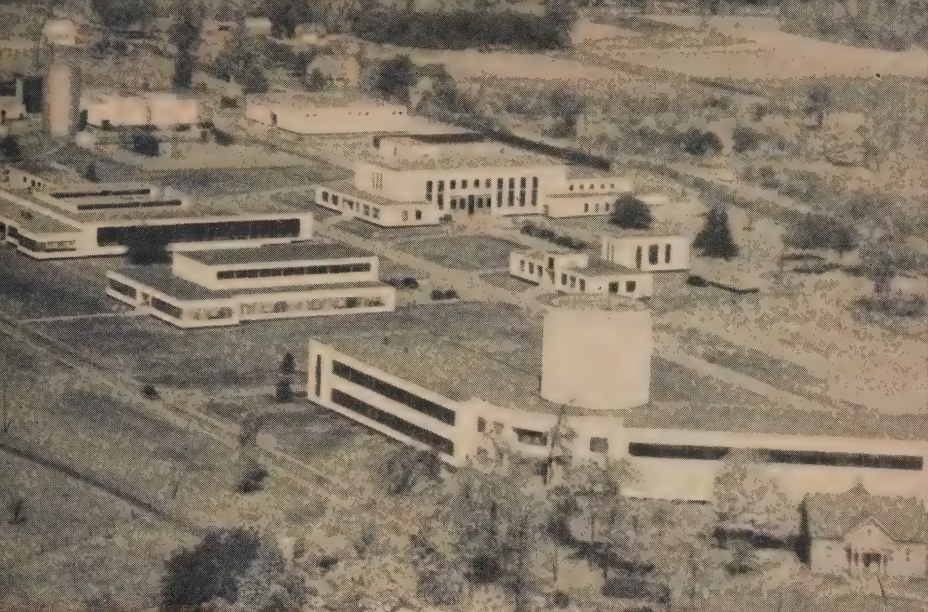


In all these meetings the numerous scientific interests of Canada are usually well represented, and when decisions are taken the members are able to carry back the recommendations to their respective organizations and institutions. Included in this category are the research establishments maintained by the larger industrial companies in widely separated centres; research foundations and councils in most of the provinces; graduate research centres at the universities; a large and important group of consultants in the science and engineering fields; and publishing houses that produce technical journals and sponsor the publication of scientific books.

Since the beginning of the twentieth century there has been a remarkable change in the relationship of the farmer and the scientist. The scientist has taken his critical methods to the fields; the farmer has brought his problems to the laboratory. To apply the laws of science to the practices of agriculture is the function of the research and experimental services of the Dominion Department of Agriculture. Highly trained specialists are continuously at work carrying research projects through various stages of analysis in the laboratory, and through testing under controlled conditions in stable, greenhouse, and experimental plot. Finally the products of their research are tested under practical farming conditions throughout the area concerned.

Various types of scientific and industrial research are carried out in the Department of Mines and Resources and its research facilities are designed to promote the more efficient development of and utilization by industry of the products of forest and mine. Resources and occurrences of Canadian minerals are studied, as well as further treatment and recovery of the industrial minerals. Research in anthropology, forest protection and management, geological investigations, mapping, problems in wildlife studies, and astronomical and meteorological subjects are all of interest to that Department. Similarly the fisheries, both inland and coastal, are under continued study by the Fisheries Research Board and the Department of Fisheries.





Health problems involve many and varied research studies, and in this field Canada holds a high position.

An Advisory Panel on Scientific Policy, consisting of senior research officials, keeps in close touch with all research activities carried on under the auspices of the Government of Canada. Each of these agencies, in turn, maintains working relations with provincial and other research institutions and the machinery of scientific and industrial research throughout Canada is thus integrated into a smoothly working mechanism of high efficiency.

**The National Research Council.**—In a recent address, Dr. C. J. Mackenzie, President of the National Research Council, said that scientific and industrial research can be considered as a tripod on which rests the industrial strength of a country. The three supporting members are: (1) fundamental research which is not focused on any particular application but is a free search for truth; (2) applied research of a basic nature, similar in technique but with a general if long-term focus, e.g., supersonics research, atomic power research, chemical, metallurgical, medical, etc.; and (3) direct industrial or *ad hoc* research and development—the scientific arm of industry in solving its immediate problems of product improvement, trouble-shooting, and cost reduction.

All three are essential elements but it should be emphasized that while in normal times the results of pure research are freely available to scientific research workers in all countries the same is not true of applied and direct research. Here, there is an element of “know how” involved, and an availability of facilities for immediate and local tasks, which make a big difference.

These three activities are, in the main, best carried on in three different kinds of organization. Everyone agrees that universities are best suited for fundamental research. Likewise everyone agrees that the last and most important step must be taken by industry itself: in the case of large industries





*Investigating the effects of cold weather on gun operations in the National Research Council's Low Temperature Laboratory.*

by their own laboratories and in the case of small industries by some arrangement with research foundations or associations.

The large field of relatively expensive applied basic research, which is nationally of prime importance and the result of which cannot be forecast with certainty as to time or financial return, must be supported by public funds and this is the essential field for government or publicly supported laboratories.

These lines of separation are not clear-cut. For instance many universities do a certain amount of applied research, and government laboratories such as the National Research Council carry on considerable work in pure research. Many industries do some fundamental and a great deal of basic applied research, but in the main the above generalization is sound and serves as a good basis for over-all national thinking in research.

In its service to industry, the National Research Council has three main objectives. First, it encourages scientists from industry to visit the laboratories of the Council and in turn sends its men to visit industrial laboratories. A free and constant flow of personnel and information is thus maintained between the Council and most industries that have laboratories. The aim is to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as sources of scientific information and assistance.

Secondly, the Council undertakes, under contract, research work for any firm which has a problem that cannot be solved by private consulting and testing laboratories, and also obtains assistance, in return, from many companies.

Thirdly, in 1945, the Council organized a Technical Information Service to try to help the innumerable small industries that have no scientific staff and who in many cases do not realize that they have problems capable of solution. This service is essentially an information, not a research activity, but information comes first and in most cases the first need of smaller industries is knowledge of the latest technical and scientific developments.

Work in building research also illustrates the point, previously made, viz., that broad research plans must be considered in terms of over-all national needs. Building research is a most widespread activity and when

the Division of Building Research was organized, in 1947, the housing emergency was a major issue everywhere. It was obvious that fundamental and long-term basic research started then could not be expected to give immediate help so it was decided to reverse the normal procedure in building up such Divisions and put initial emphasis on the more direct *ad hoc* day-to-day problems of the construction industry. Useful but unspectacular assistance has been given to the Central Mortgage and Housing Corporation in the solution of their problems.

The Council consists of the President, two Vice-Presidents and seventeen other members, each of the latter group being appointed for a term of three years and chosen to represent industry, labour, or research in one of the basic natural sciences. Many of the members are drawn from the science departments of Canadian universities.

The Council at Ottawa is organized with three Science Divisions—applied biology, chemistry, and physics—and three other Divisions dealing with engineering problems—building research, radio and electrical engineering, and mechanical engineering which includes aeronautics and hydraulics. A Division of medical research supports and correlates research on approved projects in the medical schools of Canadian universities and awards fellowships for post-graduate training in medical research.

The Council operates the great atomic energy project at Chalk River, Ont. A Prairie Regional Laboratory at Saskatoon, Sask., serves the agriculturists of Western Canada in the study of problems relating to utilization of farm wastes and the industrial use of agricultural products. A Maritime Regional Laboratory is under construction at Halifax, N.S., for the dual purpose of providing a graduate research centre for the six colleges in that area, and also to undertake investigations of industrial interest relating to the development and processing of the natural resources occurring on the eastern seaboard.

Close co-operation with government departments, federal and provincial, with the universities and research foundations as well as with industry, enables the Council to maintain at all times a good conspectus of research work in progress throughout Canada.

The movement of logs in storage dams supplying power plants is under study in the National Research Council's laboratories. A simple and economical method of keeping logs from entering power-house intakes is essential for the successful operation of power plants on log-running rivers.









# Social and Cultural Relationships

IN addition to schools and universities, there is a considerable variety of institutions and activities broadly cultural in character in that they assist the Canadian people in their pursuit of knowledge or in the expression of their capabilities. Many of these have come under review by a Royal Commission on National Development in the Arts, Letters and Sciences set up by Order in Council of Apr. 8, 1949. The matters upon which the Commission is asked to make recommendations are the following:—

- (1) The principles upon which the policy of Canada should be based, in the field of radio and television broadcasting;
- (2) Such agencies and activities of the Government of Canada as the National Museum, the Public Archives and the care and custody of public records, the Library of Parliament; methods by which research is aided including grants for scholarships through various Federal Government agencies; the eventual character and scope of the National Library; the scope or activities of these agencies, the manner in which they should be conducted, financed and controlled, and other matters relevant thereto;
- (3) Methods by which the relations of Canada and the United Nations Educational, Scientific and Cultural Organization and with other organizations operating in this field should be conducted;
- (4) Relations of the Government of Canada and any of its agencies with various national voluntary bodies operating in the field with which this inquiry will be concerned.

The Commission began public hearings at Ottawa on Aug. 3, and has since proceeded on a program of hearings in all provinces. Briefs from a great variety of organizations, both official and unofficial, have been heard. Many of the organizations or activities reviewed on the following pages are of central concern to the Commission.

## *Creative Arts*

The arts have enjoyed vigorous growth in most parts of Canada during the past several years, and a widespread awakening of public interest in cultural matters has been seen. Federal Government recognition of the fact is indicated in the preamble of the Order in Council establishing the Royal Commission on National Development in the Arts, Letters and Sciences in these words: "It is in the national interest to give encouragement to institutions which express national feeling, promote common understanding, and add to the variety and richness of Canadian life". Heretofore cultural development in Canada has been mainly on a regional and local basis and there has been little in the nature of a national cultural pattern. Now, however, Canada's obligations to certain international organizations, notably UNESCO, emphasize the need for national stimulation and development of the arts. A significant development of 1949 was the establishment by the Canada Foundation of a national competition for scholarships in the creative arts, with a value of \$2,000 each. Funds are provided by the Canadian Amateur Hockey Association.

**Ballet.**—While all art forms share in the current general stimulation in Canada, the post-war rise of ballet has been most impressive. From a

virtually unknown art a few years ago, ballet has grown into an activity enjoying enthusiastic box-office support in all parts of Canada, with at least ten permanent ballet schools operating and an estimated 15,000 students enrolled. Canada's Second Annual Ballet Festival, held at Toronto in 1949, brought companies of performers from such widely separated points as Vancouver and Halifax, and proved to be a financial as well as an artistic success.

**Creative Writing.**—Creative writing, in both English and French, has been successfully establishing itself in recent years as a vital and important cultural activity. Canadian books are increasing in number and improving in quality, and are now competing successfully with the works of long-established United States and British writers. A growing acceptance of the works of indigenous writers is seen in the fact that the initial press-runs of Canadian-published books have trebled in the past few years, and encouragement for Canadian writers is found in the willingness of magazine publishers and radio broadcasters in Canada to use locally produced work of good quality. Many Canadian writers market their entire output in the United States, thereby making a not unimportant contribution to the supply of American dollars in Canada. The Canadian Authors Association is the most important



*Members of a Canadian ballet practising backstage before a performance.*

writers' organization, having a membership of several thousands and branches in most Canadian cities. The affiliated French language writers' body is *La société des écrivains canadiens*.

**Drama.**—Post-war renewal of the well-established Dominion Drama Festival resulted immediately in widespread revival of interest in all forms of theatre art. Theatre in Canada is almost entirely the work of amateur groups and, on the whole, has gained a noteworthy degree of competence. Little Theatre organizations are firmly established in all the main cities (the Ottawa Drama League presented its thirty-eighth consecutive annual program of plays in the 1949-50 winter season). University dramatic societies are effective stimulants to Canadian public interest in the theatre, and in recent years rural communities have been encouraged by their provincial governments to organize drama activities. The broadcasting of plays by the Canadian Broadcasting Corporation has won international recognition and prestige, and this activity has provided much encouragement for radio writers and actors. Recently a number of drama organizations have turned their attention to the problem of encouraging Canadian playwrights to write more stage plays with Canadian content and character. A lively interest in the matter of "a national theatre" is found in all parts of the country, although there appears to be little likelihood of specific developments for some years.

**Painting.**—A notable current increase in public interest in the visual arts is evidenced by the larger numbers of Canadians who are visiting art galleries and buying paintings, and in particular are trying their hand at painting as a form of relaxation and enjoyment. Elementary art training is compulsory in all the public schools of Canada, and advanced courses in drawing and painting, available in all cities, are at present crowded with students. The National Gallery of Canada, at Ottawa, owns and exhibits the nation's chief collection of paintings, and performs extensive extra-mural services to the whole Canadian community. It also arranges frequent important exchanges of exhibitions with galleries and collectors in other countries. Excellent collections are found in the civic galleries of Toronto and Montreal, and both institutions foster public participation in fine art activities. Smaller galleries are maintained in many other cities, and several Canadian universities take a leading part in promoting an appreciation and understanding of both Canadian and foreign works of art. Numerous societies of artists exist in Canada, among the most distinguished being the Royal Canadian Academy, the Ontario Society of Artists, the Canadian Group of Painters and the Federation of Canadian Artists. Eager colonies of young painters are found at Montreal, Quebec, Toronto and Vancouver, and there is at present a noteworthy movement of Canadian art students to Europe and Mexico. Established Canadian painters are now enjoying unprecedented demands for their works at good prices.

**Music.**—From the earliest times music has been important in the life of Canadians, and to-day one finds in every city, town and village organizations concerned with the teaching, performance and appreciation of music. Great emphasis upon musical understanding is found in the school systems of all the provinces, and conservatories for the teaching of advanced theory and performance are well attended and competently staffed. Music festivals are important annual events in a number of larger cities, the one at Winnipeg



usually involving more than 8,000 competitors. Symphony orchestras are generously supported by public subscription in ten centres. The Royal Conservatory of Music of Toronto, which has gained the status of a national institution, recently inaugurated a School of Opera. Establishment of the Canadian Music Council as a national institution was an important development of 1949. The Canadian Broadcasting Corporation and many of the commercial sponsors of radio programs in Canada give generous employment to large numbers of top-flight musicians. In the past Canadian composers have received little encouragement or recognition, but steps to remedy this situation have been taken in the past few years and some favourable results can now be seen. Competitions for Canadian creative musical works with substantial cash awards, have brought to the fore a number of well-trained and imaginative young composers, and the willingness of the Canadian Broadcasting Corporation to use their works is a constant source of encouragement.

**Schools and Institutions.**—Cultural institutions in Canada are crowded with students, and are handicapped by lack of accommodation for expanding enrolments. Among the best known are the Banff School of Fine

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*Orchestra leader discusses score of "Hansel and Gretel" with members of his young audience after a concert. Children's concerts have been held at Ottawa for several years in the belief that they will help young people grow up with true appreciation for good music.*



The art of wood-carving, carried on extensively in Quebec and the Maritimes, is frequently passed on from father to son.



Arts situated in the Rocky Mountains, the Fine Arts colleges of Queen's University in Ontario and Mount Allison University in New Brunswick, the conservatories of Laval and Montreal Universities, the *écoles des beaux-arts* at Quebec and Montreal, and the Ontario College of Arts at Toronto. The curricula of these schools include advanced courses in music, drama, creative writing, painting, sculpture and handicrafts. Schools of architecture are part of several of the larger universities. The Canadian Arts Council, Toronto, a federation of sixteen professional societies, and the Canada Foundation, Ottawa, a clearing-house organization supported by a large number of individual subscribers, are two national, non-governmental organizations devoted to the stimulation of cultural activities.

**Handicrafts.**—The varied resources of Canada provide the raw materials for home crafts using wood, metals, leather, wool, various fibres and dyes, and clay in some regions. The diverse origins of the people provide traditions of craftsmanship from many sources—the native Indians, the early French and British settlers, and the more recent immigrants from all parts of Europe and some parts of Asia.

Several provincial governments have given stimulus and direction to the development of handicrafts. Those of the Province of Quebec are probably most widely practised and known. There are various voluntary organizations on a local basis, nine of which are affiliated or associated with the Canadian Handicrafts Guild. The Guild has provincial branches in five provinces and maintains a permanent exhibit at its headquarters at Montreal.

### *Social Sciences and Humanities*

Research in the social sciences tends to be conducted in the universities and by government agencies, and to find its outlets, apart from books and government documents, in the quarterly journals of such societies as the



Canadian Historical Association, the Canadian Political Science Association, the Canadian Psychological Association and the Canadian Institute of International Affairs. The several university 'quarterlies' also serve, but like the Proceedings of the Royal Society of Canada, and United States and United Kingdom learned journals, are rather more important for the humanities than for the social sciences.

The Canadian Social Science Research Council and the Humanities Research Council of Canada exist to promote research in their respective fields, and do so by means of grants in aid of research and publication, by fellowships, and by improvement of the training of research workers in the universities. In the few years of their existence the two Councils have been supported largely by grants from the Carnegie Corporation of New York and the Rockefeller Foundation. The Humanities Council has, however, received grants from twenty Canadian universities for five years, and seeks assistance from government sources. The Social Science Council does not desire government origin for any major portion of its income. Much of its subject field concerns matters of government policy, and it considers that greater independence would be retained by deriving its funds from a balanced variety of sources.

Both Councils have expressed the view before the Royal Commission on National Development in the Arts, Letters and Sciences that there is great need for government funds to provide scholarships and fellowships to students of the social sciences and humanities, in order to balance the opportunities provided to students of the natural sciences through the National Research Council awards. They pointed to a study made in the Dominion Bureau of Statistics which showed that nearly all science post-graduate students in Canadian universities receive financial assistance from scholarships, fellowships or part-time employment while studying, whereas only 30 p.c. of social science and humanities students are in receipt of such assistance.

### *Libraries and Museums*

**Libraries.**—Legislation for the establishment of publicly controlled libraries is enacted by the provincial governments. The libraries may be established by an individual municipality, a group of municipalities or communities, or by a properly constituted local association. The survey of public libraries in Canada for the year 1947 covered the regional libraries of Prince Edward Island, Ontario and British Columbia, and 680 libraries in individual communities.

More than 60 p.c. of the total stock of books reported by the libraries is concentrated in 60 cities, and an additional 20 p.c. is in towns and villages. The problem of providing library service for two and a half million rural people in Canada has not yet been met, but the value of regional and mobile service continues to be demonstrated. Within the past two years Nova Scotia and Saskatchewan have established demonstration projects with generous assistance from the Provincial Governments, and Manitoba has provided the necessary legislation for the establishment of regional libraries by a system of grants-in-aid. Ontario has found the system of county library co-operatives successful for rural areas containing many small communities, and now has eight in operation with some 50,000 books.



A considerable number of the libraries now stock motion picture films as well as books. Total book stock is near 20,000,000, each book being loaned, on the average, three times in a year. Registered borrowers number 1,169,000, and the average library user takes out 17 books in a year. There is no record of the service provided to those who do their reading in the libraries, or those who call the reference librarians on the telephone to have their queries answered.

About \$4,000,000 is required in a year to maintain the public libraries, of which 77 p.c. comes from local taxes, and 9 p.c. from provincial government grants.

Further steps were taken during 1949 toward the establishment of a National Library, by setting up an advisory committee and initiating bibliographical work. In a brief to the Royal Commission on National Development in the Arts, Letters and Sciences, the Canadian Library Association proposes that "the distinguishing characteristic of a Canadian National Library will be its extensive collection of Canadian material . . . (but) collections cannot be confined to *Canadians* alone". It is proposed that the National Library should act as a service centre for provincial and local libraries, by means of inter-library loans, photographic reproductions and micro-film.

**Museums.**—Museums include the National Museum at Ottawa, several provincial and municipal museums, of which the Royal Ontario Museum is the largest, and several dozen others, many of them the property of universities, colleges or local historical societies. Archives include the Public Archives of Canada at Ottawa, and some provincial collections. Galleries of fine art include the National Gallery, and others mainly under municipal or unofficial local auspices. The trend in most of these institutions is to reach a wider public through collaboration with schools and by various extension methods including travelling exhibits. International exchanges

Paintings from an art gallery are carefully packed for shipment to rural circuits, where they may be enjoyed by those living in the smaller communities.



are most frequent in the field of fine art through the medium of the National Gallery.

The Canadian Museums Association, organized in 1947, aims to act as a clearing house for information of special interest to Canadian museums, to promote the training of museum workers, to facilitate the exchange of exhibits, and to promote collaboration with the museums of other countries.

## *Media of Mass Communication*

**The Press.**—Periodical publications were produced in Canada to the value of \$89,000,000 in 1946, and paid for to the extent of \$56,000,000 by advertising, and \$33,000,000 by subscription or sale. Printed books were produced to the value of \$12,500,000, about half for advertising purposes. There is no record of the cost of subscriptions by Canadians to periodicals published abroad but it is probably a larger figure than that for subscriptions from abroad for Canadian publications. Recorded imports of books and other printed matter exceeded the value of recorded exports by about \$26,000,000. It accordingly appears that the per capita cost to Canadians of books, pamphlets and periodicals is \$10 or more in a year, something like half of which is paid for directly, and half indirectly through payment for advertising.

Much the largest item is for daily newspapers—rather more than half the total. There are nearly 100 daily newspapers published in Canada, counting morning and evening editions separately, with a reported circulation of more than 3,000,000 copies, about 80 p.c. in English and the rest in French, except for small numbers in Yiddish and Chinese. Ten papers with circulations approximating or exceeding 100,000 account for more than half of the circulation. Well over 90 p.c. of all newspaper circulation is in cities.

Weekly or monthly publications, the circulation of which is greater than that of dailies, include a considerable variety of foreign-language publications—Ukrainian, German, Yiddish, Polish, etc. Weekly papers serve much larger numbers of the people in rural communities than do the dailies.

Purchases of books and other printed matter in the United States are large, recorded imports being of the value of about \$29,000,000 in each of the past three years. The corresponding sum for imports from the United Kingdom has been growing since the war years, when comparatively little could be obtained, but is still only about \$2,000,000. Imports from France, the third largest supplier, are now valued at \$500,000 or more.

**Radio.**—The production of radio receiving sets in Canada since the War has averaged well over 600,000 per year for the home market. A survey of the Dominion Bureau of Statistics in November, 1948, indicated that 94 p.c. of the households in Canada, numbering 3,127,000, had radios. In some cities there is scarcely a household to be found without one, and in the country as a whole one family in ten has two or more.

In terms of price to the buyers, radios since the Second World War have averaged about \$70. Roughly speaking, one household in five has bought a set each year, indicating an average annual expenditure of about \$14. The cost of repairs and maintenance is probably a small item, and the licence fee is \$2.50 per year. This fee was paid by 1,944,027 possessors of receiving sets



Animation art director of the National Film Board drawing sketches directly on film.

in 1947-48, and constituted the chief item of income for the Canadian Broadcasting Corporation. For information on the operations of the CBC and privately owned stations, see pp. 227 to 230.

**Motion Pictures.**—In 1948 Canadians on the average attended motion picture theatres about 18 times and paid about \$7 each in admissions. The source of this entertainment remains largely United States studios although, as in the case of books and other printed materials, there has been some revival of imports from the United Kingdom and France since the War.

While few feature-length films for the commercial theatres are produced in Canada, there is a considerable production of "shorts" both by the National Film Board and commercial producers. Some of these have recently won important international awards. In 1949 the Canadian Association for Adult Education instituted a series of awards for distinguished Canadian film production, including theatrical and non-theatrical types, amateur and professional work. The project was developed by the Association's Joint Planning Commission on which are represented fifty national organizations interested in education and the arts; the awards are presented by the Prime Minister of Canada.

Schools, adult education agencies, and other community groups are making increased use of films. There are some 200 film libraries and community film councils usually founded by public libraries, provincial departments of education, or university extension departments, with the co-operation of school boards, service clubs, etc. The local libraries receive assistance from the National Film Board and the National Film Society in obtaining films. The National Film Board has some 160 rural circuits where provision is made for the periodical exhibition of films in a group of communities.

The National Film Board directs the distribution of Canadian films abroad, and with the increased numbers of Canadian diplomatic and trade representatives in other countries this has become an important part of the Board's work.





*Pulpwood, cut far up in the Gatineau hills, stockpiled at the pulp and paper mills across the River from Ottawa.*

# National Income Survey of Production

THIS chapter summarizes the year-to-year changes in the value of Canada's annual production of goods and services, and describes the way in which this total product of the country's economic activity is utilized to satisfy consumer wants, to provide government services, or to increase the nation's capital at home or abroad. The first section, "National Income", deals with net national income at factor cost, gross national product and expenditure, and personal income and its disposition. The second section, "Survey of Production", describes the gross and net value of commodity production of primary and secondary industries.

## ★ *National Income*

**National Income, Gross National Product and Gross National Expenditure.**—Net national income at factor cost, or more briefly, national income, measures the value of current production after provision has been made for depreciation of capital assets, and exclusive of indirect taxes less subsidies. It is equal to the annual earnings of Canadian residents from the production of goods and services, that is, the sum of salaries, wages and supplementary labour income, military pay and allowances, corporation profits and other returns on invested capital, and net income of farmers and other enterprisers who are in business on their own account.

Gross national product is defined as the value at market prices of all the goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the costs involved in their production. It is obtained by adding to national income indirect taxes and depreciation allowances and similar business costs, which enter into the cost of goods and services (and hence market prices) but do not form a part of the incomes of Canadians. On the other hand, government subsidies are deducted since their effect is to reduce the cost of goods and services produced.

Gross national expenditure is defined as the market value of all goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the sales of these goods and services, including changes in inventories. Thus, while it measures the same total as gross national product, it indicates how the goods and services produced are disposed of to resident persons, the government, to business on capital account, and abroad.

Expansion has continued almost unchecked since 1939. The value of goods and services produced in 1948 attained new high levels, surpassing 1947 by 14 p.c. Most of the increase was accounted for by higher prices, with physical output showing a modest gain. The resulting additions to income

were widely distributed. Total income of wage and salary earners went up by 15 p.c., investment income by 7 p.c., and the income of those engaged in agriculture and other unincorporated business by 25 p.c. Since 1939 these three items have more than doubled. It is difficult to say how much of the gain has been in real output, but tentative calculations suggest that when adjustment is made for price changes between the two years, the physical output of the Canadian people was probably two-thirds higher than in 1939.

**Net National Income at Factor Cost and Gross National Product at Market Prices, 1929, 1933, 1939 and 1943-48**

(Millions of Dollars)

| Item   | 1929         | 1933         | 1939         | 1943          | 1944          | 1945          | 1946          | 1947          | 1948 <sup>p</sup> |
|--|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|
| Salaries, wages and supplementary labour income.                 | 2,839        | 1,791        | 2,583        | 4,746         | 4,908         | 4,915         | 5,322         | 6,212         | 7,113             |
| Military pay and allowances.....                                 | 8            | 8            | 32           | 910           | 1,068         | 1,117         | 340           | 83            | 82                |
| Investment income.....   | 814          | 233          | 783          | 1,778         | 1,774         | 1,905         | 1,978         | 2,307         | 2,473             |
| Net income of agriculture and other unincorporated business..... | 1,028        | 355          | 891          | 1,659         | 1,962         | 1,810         | 2,156         | 2,336         | 2,920             |
| <b>Net National Income at Factor Cost.....</b>                   | <b>4,689</b> | <b>2,387</b> | <b>4,289</b> | <b>9,093</b>  | <b>9,712</b>  | <b>9,747</b>  | <b>9,796</b>  | <b>10,938</b> | <b>12,588</b>     |
| Indirect taxes less subsidies.....                               | 674          | 566          | 737          | 1,117         | 1,113         | 1,007         | 1,269         | 1,604         | 1,735             |
| Depreciation allowances and similar business costs.....          | 677          | 500          | 582          | 912           | 863           | 785           | 846           | 1,009         | 1,085             |
| Residual error of estimate.                                      | -84          | +15          | -10          | +176          | +209          | +220          | +25           | +40           | +42               |
| <b>Gross National Product at Market Prices.....</b>              | <b>5,956</b> | <b>3,468</b> | <b>5,598</b> | <b>11,298</b> | <b>11,897</b> | <b>11,759</b> | <b>11,936</b> | <b>13,591</b> | <b>15,450</b>     |

**Gross National Expenditure at Market Prices, 1929, 1933, 1939 and 1943-48**

(Millions of Dollars)

| Item  | 1929         | 1933         | 1939         | 1943          | 1944          | 1945          | 1946          | 1947          | 1948 <sup>p</sup> |
|---|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|-------------------|
| Personal expenditure on consumer goods and services.....              | 4,383        | 2,848        | 3,861        | 5,869         | 6,330         | 6,999         | 7,952         | 9,126         | 10,083            |
| Government expenditure on goods and services <sup>1</sup> ..          | 686          | 521          | 724          | 4,271         | 5,075         | 3,710         | 1,848         | 1,551         | 1,768             |
| Gross Home Investment—Plant, equipment and housing <sup>2</sup> ..... | 1,107        | 221          | 554          | 828           | 756           | 882           | 1,362         | 2,057         | 2,576             |
| Inventories.....  | 10           | -105         | 327          | -40           | -82           | -300          | 467           | 879           | 646               |
| Exports of goods and services <sup>3</sup> .....                      | 1,632        | 826          | 1,451        | 3,403         | 3,566         | 3,580         | 3,203         | 3,629         | 4,037             |
| Imports of goods and services.....                                    | -1,945       | -828         | -1,328       | -2,858        | -3,539        | -2,893        | -2,871        | -3,612        | -3,618            |
| Residual error of estimate.   | +83          | -15          | +9           | -175          | -209          | -219          | -25           | -39           | -42               |
| <b>Gross National Expenditure at Market Prices.</b>                   | <b>5,956</b> | <b>3,468</b> | <b>5,598</b> | <b>11,298</b> | <b>11,897</b> | <b>11,759</b> | <b>11,936</b> | <b>13,591</b> | <b>15,450</b>     |

<sup>1</sup> Includes UNRRA, Mutual Aid, etc., of \$518,000,000, \$960,000,000, \$858,000,000, \$97,000,000, \$38,000,000 and \$19,000,000 in the years 1943, 1944, 1945, 1946, 1947 and 1948, respectively.

<sup>2</sup> Excludes government housing expenditures, excepting for \$36,000,000 by Central Mortgage and Housing Corporation in 1948.

<sup>3</sup> Excludes UNRRA, Mutual Aid, etc.; see footnote 1.



An examination of the components of the gross national expenditure reveals how this increase in the value of production was absorbed. Personal expenditure on consumer goods and services rose by 11 p.c. between 1947 and 1948. This is slightly less than the increase of 14 p.c. in the cost-of-living index during the same period, indicating a decline in real terms in personal expenditure on consumer goods and services. Post-war investment continued at an unprecedented rate with expenditures on housing increasing 32 p.c. in 1948 over 1947, and expenditures on plant and equipment by 23 p.c. Inventories continued to grow, although at a slower rate than in 1947. These three items accounted for 21 p.c. of Canada's gross national expenditure in 1948 as compared with 16 p.c. in 1939 and only 5 p.c. in 1945.

**Personal Income and Disposition of Personal Income.**—The total personal income received by Canadians, and the disposition of this income, is shown in the following tables.

### *Personal Income, by Sources, 1929, 1933, 1939 and 1943-48*

(Millions of Dollars)

| Source  | 1929         | 1933         | 1939         | 1943         | 1944         | 1945         | 1946         | 1947          | 1948 <sup>p</sup> |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|-------------------|
| Salaries, wages and supplementary labour income.  | 2,839        | 1,791        | 2,583        | 4,746        | 4,908        | 4,915        | 5,322        | 6,212         | 7,113             |
| DEDUCT: Employer and employee contributions to social insurance and government pension funds..... | -25          | -20          | -34          | -124         | -132         | -135         | -149         | -181          | -220              |
| Military pay and allowances.....  | 8            | 8            | 32           | 910          | 1,068        | 1,117        | 340          | 83            | 82                |
| Net income of agriculture and other unincorporated business.....                                  | 1,028        | 355          | 891          | 1,659        | 1,962        | 1,810        | 2,156        | 2,336         | 2,920             |
| Interest, dividends and net rental income of persons <sup>1</sup>                                 | 584          | 428          | 570          | 757          | 806          | 848          | 890          | 1,047         | 1,145             |
| Transfer payments from governments to persons.  | 98           | 196          | 249          | 216          | 263          | 552          | 1,111        | 848           | 843               |
| <b>Totals, Personal Income</b>  | <b>4,532</b> | <b>2,758</b> | <b>4,291</b> | <b>8,164</b> | <b>8,875</b> | <b>9,107</b> | <b>9,670</b> | <b>10,345</b> | <b>11,883</b>     |

<sup>1</sup> Includes charitable donations from corporations.

### *Disposition of Personal Income, 1929, 1933, 1939 and 1943-48*

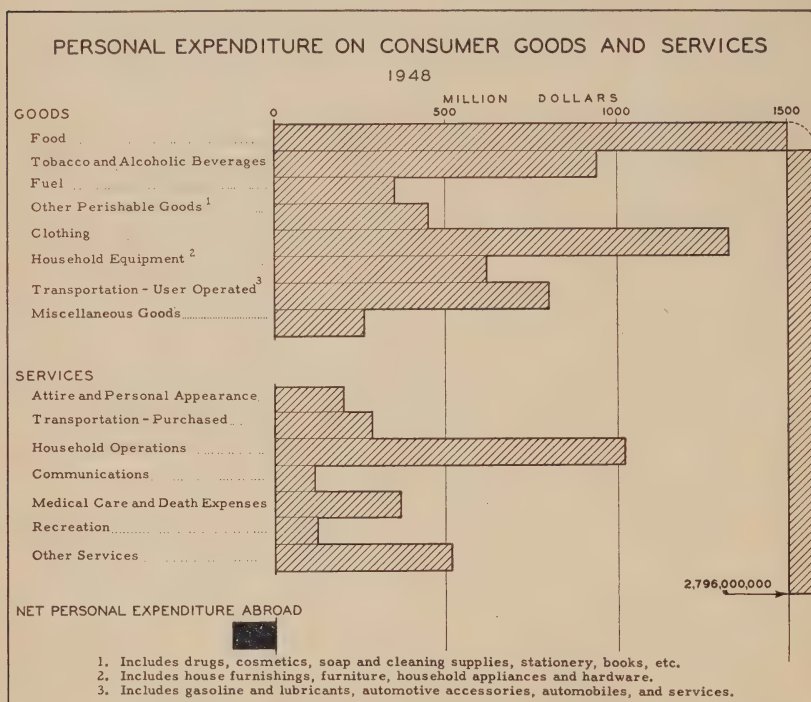
(Millions of Dollars)

| Item   | 1929         | 1933         | 1939         | 1943         | 1944         | 1945         | 1946         | 1947          | 1948 <sup>p</sup> |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|-------------------|
| Personal Direct Taxes—                                   |              |              |              |              |              |              |              |               |                   |
| Income taxes.....  | 33           | 38           | 61           | 631          | 772          | 733          | 711          | 694           | 717               |
| Succession duties.....                                   | 16           | 13           | 28           | 38           | 40           | 47           | 54           | 61            | 57                |
| Miscellaneous.....                                       | 19           | 16           | 21           | 28           | 25           | 25           | 32           | 36            | 39                |
| <b>Totals, Direct Taxes..</b>                            | <b>68</b>    | <b>67</b>    | <b>110</b>   | <b>697</b>   | <b>837</b>   | <b>805</b>   | <b>797</b>   | <b>791</b>    | <b>813</b>        |
| Personal expenditure on consumer goods and services..... | 4,383        | 2,848        | 3,861        | 5,869        | 6,330        | 6,999        | 7,952        | 9,126         | 10,083            |
| Personal Saving—   |              |              |              |              |              |              |              |               |                   |
| Net changes in farm inventories.....                     | -144         | -29          | 60           | -62          | -124         | -238         | -41          | -111          | -65               |
| Other.....   | 225          | -128         | 260          | 1,660        | 1,832        | 1,541        | 962          | 539           | 1,052             |
| <b>Totals, Personal Saving...</b>                        | <b>81</b>    | <b>-157</b>  | <b>320</b>   | <b>1,598</b> | <b>1,708</b> | <b>1,303</b> | <b>921</b>   | <b>428</b>    | <b>987</b>        |
| <b>Totals, Personal Income</b>                           | <b>4,532</b> | <b>2,758</b> | <b>4,291</b> | <b>8,164</b> | <b>8,875</b> | <b>9,107</b> | <b>9,670</b> | <b>10,345</b> | <b>11,883</b>     |

Personal income differs from national income in several respects. For example it does not include earned income not paid out to persons such as undistributed corporation profits, but does include unearned income in the form of transfer payments such as family allowances, old age pensions, veterans benefits and charitable contributions by corporations.

Personal income rose by \$1,538,000,000 from 1947 to 1948, or by 15 p.c. The largest relative increase was in the net income of agriculture and other unincorporated business which rose by 25 p.c. from 1947 to 1948. Transfer payments were down slightly due largely to decreases in war service gratuities and re-establishment credits.

Personal direct taxes, although larger absolutely, formed 8 p.c. of personal expenditure in 1947 against 7 p.c. in 1948. There was a notable increase in personal saving from \$428,000,000 in 1947 to \$987,000,000 in 1948. Although less than in the war years of 1942 to 1945, it was well above any other year since 1926.



**Personal Expenditure on Consumer Goods and Services.**—The chart above reveals the pattern of personal expenditure on consumer goods and services for the year 1948. It shows how the item "personal expenditure on consumer goods and services", which appears in the table of gross national expenditure, is allocated among the main commodity and service groups.

The figures cover not only the expenditures of persons but also those of private non-commercial institutions. Expenditures on consumer goods and



*The mighty silver-lead-zinc smelter at Trail, B.C., is the heart of a long-established and progressive mining industry.*

services made by business in the course of production are excluded, as are expenditures of governments on behalf of the community, such as for public education and health services. In addition to cash expenditures a valuation of consumption of income in kind has been included under the respective headings. The item "net personal expenditure abroad" consists of the expenditures of Canadian tourists abroad, gifts in kind and personal remittances abroad, less expenditures in Canada of tourists and personal remittances to Canada. In 1948 this item was negative mainly because of the spending of United States tourists in Canada.

In 1948 expenditures on food by Canadians amounted to \$2,796,000,000 or 28 p.c. of total personal expenditures on consumer goods and services. Clothing accounted for 13 p.c. of the total, household operations for 10 p.c., tobacco and alcohol for 9 p.c., automobiles and their operation for 8 p.c., and furniture, household appliances and hardware for 5 p.c. Together, the items above were responsible for 74 p.c. of consumer expenditures.

The main components of the item "household operations" are paid rents and imputed rents of owner-occupied houses, electricity, gas and domestic service. In 1938 household operations accounted for 19 p.c. of consumer expenditures, as compared with 10 p.c. in 1948. The decrease in the importance of this item is due first to the fact that rents have risen by less than half as much as prices generally, as indicated by the components of the cost-of-living index; and secondly, to the fact that whereas Canadians have increased



the quantity of food, clothing and other items purchased, it is not practicable for families to similarly increase the amount of space that they occupy.

Almost half of personal expenditures in 1948 went for perishable goods such as food, tobacco, alcoholic beverages, soap, magazines and fuel. Sixteen per cent went for semi-durable goods—clothing, house furnishings and automobile accessories—while durable goods such as automobiles and furniture accounted for 8 p.c. Services took up the remaining 27 p.c.

## ★Survey of Production

Industrial output in 1949 continued its post-war record pace. The indexes of industrial production, employment and wholesale prices averaged higher during the first eight months than in the same period of 1948. Also reflecting increased economic activity, the gain in the estimated value of retail trade more than matched the advance in retail prices, and the components of foreign trade, exports and imports (especially the latter), continued at higher levels. There was also greater activity in construction and electric-power development.

Since, for most purposes, the *net* value of production is more significant than the *gross* which includes a large amount of duplication, the subsequent analysis is based mainly on that phase of the subject. Net production is made up of the gross value less the cost of materials, fuel, purchased electricity and supplies consumed in the productive process. The operations of the nine branches of industry considered here are directed either through primary or secondary phases toward the production of commodities rather than services, the activities of transport, trade, finance, government and service groups being entirely excluded.

**Current Trends.**—The net value of commodity production in 1947, the latest year for which final figures are available, was the highest ever attained in the history of the country: the total was \$7,765,000,000 against \$6,458,000,000 in 1946. Factors contributing to this marked gain included higher price levels, post-war release of accumulated demand for consumer goods here and abroad, record investment in housing, plant and equipment, and significant improvement in the labour situation and the availability of raw materials. Estimates indicate that further expansion of production in all industries was achieved in 1948 and 1949. The physical volume of industrial production rose from 175.5 in 1947 to 181.5 in 1948 and the general index of wholesale prices advanced nearly 19 p.c. in the same comparison.

Each of the nine industrial groups except trapping reached an all-time high in 1947. Among the six primary industries, the principal component—agriculture—showed an increase of 8 p.c. over 1946 which resulted in an even greater net value than in 1944, the previous high point. Greater physical output and still higher prices for farm products indicate a further increase in the value of the agriculture industry in 1948.

The unprecedented building activity and greater production of newsprint and other paper products in 1947 combined with higher prices resulted in an impressive gain of 34 p.c. over 1946 in the value of forestry production. This industry has shown an unbroken record of advances since 1938. Despite a decline in volume, higher prices resulted in a slight gain of 2 p.c. for the fisheries industry when compared with 1946. After a steep advance in 1945, the value

of the industry has remained relatively stable. The sharp drop of nearly 46 p.c. in the net value of trapping was caused mainly by considerably lower prices for practically all kinds of fur in 1947. This has resulted in a six-year low for the industry.

An increase of nearly 31 p.c. in the value of mining, after a four-year recession, has established a new maximum for the industry, having exceeded even the previous high recorded in 1942. Here again, the advance in prices following the removal of price controls was the predominant cause, although there were, in addition, gains in the physical output of gold and some base metals as compared with 1946 and important advances in the volume of iron ore and non-metallic minerals due to the high building activity. The electric-power industry increased 6 p.c. in value over the preceding year, indicating a continuing acceleration in development after the growth of the industry was retarded during the war period.

The total value of the secondary industries reached a new maximum in 1947. The increase over 1946 was nearly 26 p.c. The most outstanding gain recorded was in construction, the net value of which rose more than 47 p.c. over the preceding year. Increased building activity and record prices for construction materials contributed to this marked advance. Custom and repair continued its upward trend with a gain of nearly 16 p.c. over 1946.

Total manufactures surpassed even the wartime peak in 1944 to reach its highest net value in history, having advanced about 24 p.c. over the preceding year to a record of \$4,292,000,000. Higher prices and increased physical output contributed to this sharp gain.

**Relative Position of Industrial Groups.**—The total net value of production advanced about 172 p.c. in the ten-year period 1938 to 1947. Five of the nine industries failed to equal this gain in the aggregate and therefore lost in relative importance. The remaining four that increased relatively were: forestry, fisheries, construction and manufactures.

*Loading wheat from an elevator into a lake-freighter. Wheat from Canada's Prairie Provinces is shipped to many parts of the world.*





*Pulpwood on the  
Gatineau River,  
Que.*

The advance in the value of agriculture was about 157 p.c., the percentage of this industry to the total was 20 in 1947 compared with 22 in the pre-war year 1938. The share of forestry rose from 9 p.c. in 1938 to 12 p.c. in 1947 and little change occurred in fisheries and trapping. The position of mining was considerably impaired in the ten-year period, its relative importance having dropped from 13 p.c. in 1938 to 7 p.c. in 1947. Electric power also lost ground in this comparison, development having failed to keep pace with the aggregate power generated during the war and early post-war periods. Due to increased building activity, construction reached its highest point in the period under review, and its rating advanced from 6 p.c. of total production in 1938 to 8 p.c. in 1947. The position of custom and repair receded but total manufactures advanced to over 55 p.c. of the total compared with 50 p.c. in 1938.

**Provincial Movements.**—Only two provinces failed to establish all-time highs in value of production in 1947. Prince Edward Island receded slightly from its 1946 peak of \$22,100,000 and predominantly agricultural Saskatchewan, despite a rise of over 17 p.c. over 1946, failed to better its record of \$529,000,000 established in 1944.

The increase in net production in Quebec compared with 1946 was nearly 17 p.c. but as the gain in the Canadian total was over 20 p.c., the relative importance of this province was less in 1947 than in the preceding year. Ontario, with a gain of over 24 p.c. in the year under review, gained ground. Despite advances in Nova Scotia and New Brunswick of about 6 p.c. and nearly 18 p.c., respectively, these two Maritime Provinces, together with Prince Edward Island, lost in relative importance. The three Prairie Provinces also suffered in this connection. Manitoba and Alberta established new maxima in 1947 but failed to reach the advance in the Canadian total.



Besides Ontario the only other province to gain in relative importance in 1947 was British Columbia which recorded a larger percentage increase over 1946 than any other province and established a new record.

**Per Capita Production.**—The total of net production per capita for Canada in 1947 recorded a new maximum of \$617 which surpassed the previous 1944 record of \$563 by nearly 11 p.c. Due to its pre-eminent position in industrial development, Ontario at \$759 was the leader on a per capita basis, and British Columbia was second with \$737. The per capita production of Alberta at \$602 was in third place and Quebec followed with \$558. The standing in the other provinces was: Saskatchewan, \$542; Manitoba, \$495; New Brunswick, \$390; Nova Scotia, \$336; and Prince Edward Island, \$232.

### Gross and Net Values of Production, by Industries, 1946 and 1947

| Industry  | 1946           |               | 1947           |               |
|---|----------------|---------------|----------------|---------------|
|   | Gross          | Net           | Gross          | Net           |
|   | \$             | \$            | \$             | \$            |
| Agriculture.....  | 1,937,301,000  | 1,468,027,000 | 2,129,522,000  | 1,579,604,000 |
| Forestry.....   | 1,228,994,287  | 711,026,833   | 1,628,909,054  | 953,918,800   |
| Fisheries.....  | 177,024,678    | 107,908,162   | 174,279,465    | 110,088,471   |
| Trapping.....   | 31,077,867     | 31,077,867    | 16,842,966     | 16,842,966    |
| Mining.....   | 754,386,422    | 422,074,303   | 1,010,643,735  | 552,309,949   |
| Electric power.....                                     | 226,096,273    | 220,511,067   | 239,116,247    | 233,860,860   |
| Less duplication in forest production <sup>1</sup> .... | 93,930,000     | 73,516,000    | 107,757,000    | 84,438,000    |
| Totals, Primary Production.....                         | 4,260,950,527  | 2,887,109,232 | 5,091,556,467  | 3,362,187,046 |
| Construction.....                                       | 868,661,403    | 408,695,662   | 1,256,535,677  | 601,539,452   |
| Custom and repair.....                                  | 314,310,000    | 213,273,000   | 364,141,000    | 247,086,000   |
| Manufactures.....                                       | 8,035,692,471  | 3,467,004,980 | 10,081,026,580 | 4,292,055,802 |
| Totals, Secondary Production.....                       | 9,218,663,874  | 4,088,973,642 | 11,701,703,257 | 5,140,681,254 |
| Less duplication in manufactures <sup>2</sup> .....     | 1,266,379,183  | 518,517,965   | 1,719,695,805  | 737,453,025   |
| Grand Totals....  | 12,213,235,218 | 6,457,564,909 | 15,073,563,919 | 7,765,415,275 |

<sup>1</sup> Duplication eliminated between the agriculture and forestry totals; both items include the value of forest products obtained from farm lots. <sup>2</sup> This item includes sawmills, pulp and paper mills, etc., also included under other headings above.

### Gross and Net Values of Production, by Provinces, 1946 and 1947

| Province or Territory                | 1946           |               | 1947           |               |
|--------------------------------------|----------------|---------------|----------------|---------------|
|                                      | Gross          | Net           | Gross          | Net           |
|                                      | \$             | \$            | \$             | \$            |
| Prince Edward Island.                | 38,351,051     | 22,144,302    | 40,275,589     | 21,840,154    |
| Nova Scotia.....                     | 350,404,499    | 197,329,638   | 381,199,094    | 208,889,897   |
| New Brunswick.....                   | 300,733,163    | 162,700,528   | 365,009,501    | 191,525,027   |
| Quebec.....                          | 3,441,764,182  | 1,775,525,027 | 4,143,940,492  | 2,069,847,205 |
| Ontario.....                         | 5,063,715,869  | 2,557,193,323 | 6,474,752,242  | 3,177,503,242 |
| Manitoba.....                        | 625,319,340    | 329,300,254   | 694,565,858    | 368,006,138   |
| Saskatchewan.....                    | 626,522,150    | 388,858,319   | 734,931,886    | 456,414,057   |
| Alberta.....                         | 708,612,493    | 434,902,340   | 819,106,465    | 495,086,290   |
| British Columbia.....                | 1,050,437,480  | 583,012,640   | 1,410,697,659  | 769,392,150   |
| Yukon and Northwest Territories..... | 7,374,991      | 6,598,538     | 9,085,133      | 6,911,115     |
| Canada.....                          | 12,213,235,218 | 6,457,564,909 | 15,073,563,919 | 7,765,415,275 |



# Primary Production

## ★ Agriculture

UNTIL well into the nineteenth century Canadian agriculture remained a subsidiary industry. The early economic development of Canada prior to that time was centred around the fishing industry and the fur trade. It was not until about 1820, when lumbering had taken precedence over trapping, that agriculture began to emerge as a major primary industry. To-day agriculture, including stock-raising and horticulture, is the most important single industry of Canada, employing a quarter of the gainfully occupied population and about 30 p.c. of the gainfully occupied males. In addition, it provides the raw materials for many manufacturing industries, and its products, in raw or manufactured form, constitute a large proportion of Canadian exports.

There are many types of farming in Canada. At the one extreme is wheat production, which predominates in large areas in the Prairie Provinces; at the other are the intensified operations connected with small fruits, market gardening and tobacco, such as are carried on in southern Ontario. These variations in types of farming result largely from differences in soil, climate, and location with respect to markets.

With the exception of the Maritimes and the Central Provinces there is little uniformity or continuity of agricultural areas. In most instances, the agriculture of Canadian areas resembles fairly closely that of the areas of the United States adjoining them, of which they are geographically a part. The tremendous natural obstacles between the areas present difficult problems of communication, transportation and distribution.

Four important agricultural regions are readily distinguished. Agriculture in British Columbia is principally located in the mountain valleys and the coastal plains, and includes dairying, poultry, apples and small fruits, seeds and market gardening. The climate is generally mild and rainfall abundant.

The Prairie Provinces of Alberta, Saskatchewan and Manitoba form a block which includes about two-thirds of the occupied farm land of Canada. The lands are used chiefly for grain production, the choice of farm enterprises being severely restricted by nature and markets. The climate is more extreme than in other agricultural areas; the frost-free period is fairly short and rainfall is limited and variable.

The southern parts of Quebec and Ontario are included in the central group. Most of the agricultural portions of these Provinces are favoured with a temperate climate. Here are located the densest centres of population in Canada, where local conditions and markets have much to do with the determination of the types of farming, which are quite varied in character. Thus near Toronto and Ottawa are fairly well defined areas in which the farmers cater to city demand for dairy produce, market-garden truck, potatoes and other vegetables, and poultry. In the general interlake region of Ontario





*Harvest vegetables  
displayed at the  
Central Canada  
Exhibition, Otta-  
wa.*

are several large areas in which beef-raising is important. These are among the earliest settled portions of the Province. There are also long-established dairying districts located in this part of Ontario. The mild climate in the Niagara Peninsula favours fruit-growing and vegetable production, while the shores of Lake Erie produce market-garden crops, tobacco, sugar-beets, corn, orchard crops and produce for canning.

Except for the northern fringe of the agricultural area of Quebec Province, agricultural production is concentrated on both banks of the St. Lawrence River where the climatic conditions lend themselves to dairying, poultry and hog-raising. There is a fairly well defined area where tobacco is grown, largely of the pipe and cigar type, in contrast to Ontario, where cigarette tobacco is more commonly produced. In the vicinity of Montreal there is a highly specialized area where small fruits, apples, vegetables and poultry are main enterprises. Some of the districts bordering the United States specialize in dairy farming. Maple syrup and sugar are quite important additions to the farm income in many sections.

The eastern group includes the Maritime Provinces of Prince Edward Island, Nova Scotia and New Brunswick. The climate in this area is generally temperate, favouring dairying, mixed farming and the growing of potatoes, apples and other fruits. The agriculture of Newfoundland is largely local.

The agricultural production of Canada is greater than domestic needs, and farming adapted to export trade has consequently been a natural development. The volume of total production that has entered export trade has varied through the years from about 40 p.c. when world markets have been favourable, to between 15 and 20 p.c. when the reverse condition existed. The United Kingdom has always been Canada's best customer for the exportable surplus of agricultural products, particularly wheat and flour, bacon and pork products, cheese and dairy products, fresh apples, and to a lesser extent eggs and poultry, meat products and miscellaneous commodities such as fruit products, dried beans, field and garden seeds and tobacco.

During the past decade the pattern of agricultural production in Canada has changed somewhat due to the application of improved farming methods. The trend to mechanization, indicated by the fact that between 1938-48 farmers spent more than \$740,000,000 on machinery and equipment, was stimulated by a scarcity of farm labour during the War, by relatively high wages and the risk of using transient labour to harvest crops with a high market value, and by the increased income received by farmers. Using wholesale values, \$50 per farm was spent on new machinery in 1946 and \$237 in 1948. Also many new weed killers and insecticides such as 2,4-D and D.D.T. are playing their part in ridding crops of weeds and in reducing the onslaughts of insects that have a detrimental effect on agricultural production. Their full value to agriculture generally is as yet unknown.

Agriculture becomes more scientific with the years. Naturally the farmer himself cannot be the agricultural scientist for the field is too extensive, but he can and does put into practice the findings of the scientist in the laboratory and on the test plot.

Agricultural research and its interpretation to the farmer in a practical manner so that it can be effective in the large-scale operations on the farm has been one of the many tasks of the Department of Agriculture for two-thirds of a century. The work comes under two of the main sections of the Department: the Experimental Farms Service and the Science Service.

There are in operation to-day 29 Experimental Farms and Stations, 12 Experimental Substations, 52 District Experimental Substations, 155 Illustration Stations, and 9 Branch Laboratories. Co-ordination and supervision of scientific activities in the major branches of practical agriculture is effected through appropriate Divisions with headquarters at the Central Farm at Ottawa and with suitable laboratories both at Ottawa and at other points in Canada.



*Experiments are carried on in the laboratories of Federal Experimental Farms across Canada with a view to improving the quality of various types of fruits and vegetables and furthering their use in commercial fields.*

Quite apart from the work of the Central Experimental Farms, research has long been carried on by units of the Science Service, which includes the research Divisions of Animal Pathology, Bacteriology and Dairy Research, Botany and Plant Pathology, Chemistry and Entomology and the Division of Plant Protection. The work of Science Service is directed toward the solution of practical problems of agriculture through scientific investigation. It deals with problems relating to the ravages of insect pests and diseases affecting plants and animals, the deterioration of plant and animal products from fungi and bacteria, the nutritional requirements of plants and animals, and the chemistry and microbiology of soils, foods and dairy products. It carries out chemical and biological determinations required in the administration of various Federal Acts and Regulations, such as the Pest Control Products Act and the Feeding Stuffs Act, and administers the Destructive Insect and Pest Act, including the inspection of imported and exported plants and plant products and the establishment of quarantine and control measures for introduced pests and diseases.

All the experimental and research work is co-ordinated with the other units of the Department and with special research projects undertaken by the National Research Council and by universities and agricultural colleges.

A matter of grave concern to the future of agriculture is the loss of soil through wind and water erosion, and its decreasing productivity through improper methods of cultivation. Much is being done in Western Canada through the activities of the Prairie Farm Rehabilitation Act and in Eastern Canada under the Maritime Marshland Rehabilitation Act, but these are large-scale undertakings. The need is for action by individual farmers on their own farms. Soil conservation is under constant study by the Department and methods are recommended, directed toward keeping the soil where it belongs—on the farm—and keeping it productive.

**Legislation to Assist the Farmer.**—A number of the Acts passed by the Federal Parliament in recent years directly assist the farmer to meet some of his problems. Among those at present in effect are the Agricultural Prices Support Act, 1944; the Prairie Farm Rehabilitation Act, 1935, as amended in 1937 and 1939; the Maritime Marshland Rehabilitation Act, 1948; the Prairie Farm Assistance Act, 1939; the Cheese and Cheese Factory Improvement Act, 1939; the Farm Improvement Loans Act, 1944; and the Veterans' Land Act, 1942. The Federal Department of Agriculture, the Provincial Departments of Agriculture and the Canadian Farm Loan Board help the farmer financially and in other ways. The following paragraphs summarize Federal Government agricultural policy and legislation.

*Prices Support.*—Possibly one of the most important pieces of farm legislation enacted within recent years is the Agricultural Prices Support Act, 1944, which enables the Federal Government, acting through a Board, to establish support prices for an agricultural product (except wheat, which is handled separately) that is in over-supply. Support prices have been extended under this Act to potatoes, apples, butter, cheese, beans, honey and skimmed-milk powder.

*Prairie Farm Rehabilitation Act.*—Land conservation activities are being continued under the Prairie Farm Rehabilitation Act, which was passed in April, 1935, "to provide for the rehabilitation of drought and soil-drifting areas in the Provinces of Manitoba, Saskatchewan and Alberta".





The St. Mary-Milk River Irrigation Project in southeastern Alberta will, when completed, provide water for 500,000 acres located in a low-precipitation, high-temperature zone in which a wide range of crops are successfully grown where irrigation is available. The earth

dam (above) will be 186 ft. in height. The insert shows operators opening the head gates of the Taber Irrigation District at Chin Reservoir, one of the existing projects in the same area.

In accordance with the terms and intentions of this Act, there has been organized throughout the drier regions of the Prairie Provinces (comprising over 400,000 square miles located in southwestern Manitoba, southern Saskatchewan and southeastern Alberta) a rehabilitation program which has as its main objective the adjustment of prairie agriculture to the conditions



A row-crop cultivator at work in a beet field.

imposed by severe droughts such as those of the 1930-37 period. This rehabilitation program covers three main phases of work: water development, land utilization and promotion of better farming practices. Approximately \$34,000,000 have been spent on this program since its inception, the bulk of which has gone into the construction of water development projects ranging in size from small reservoirs on individual farms to irrigation projects involving thousands of acres. The construction of community pastures on sub-marginal lands has also been important.

*Land Reclamation.*—While operations under the Prairie Farm Rehabilitation Act are confined to the Prairie Provinces, land reclamation and development work is being carried out elsewhere by the Department of Agriculture to meet special situations. Several projects relating to the settlement of veterans have been undertaken in British Columbia and assistance has been granted to the Maritime Provinces for emergency repairs of the protective dykes in the coastal marshland areas. The Maritime Marshland Rehabilitation Act, passed in 1948, provides for a thorough-going program of dykeland reconstruction, with provincial co-operation.

*Prairie Farm Assistance Act, 1939.*—Under the Prairie Farm Assistance Act, 1939, the Federal Government makes cash payments each year to farmers in areas within the Prairie Provinces which have had low crop yields because of drought or other causes. The award to a farmer is based upon the acreage of the farm and the average yield of wheat in the township in which the farm is located, and the maximum amount payable on any one farm is \$500. Contributory payments are made by the farmers in the form of a levy of 1 p.c. on the value of all grains marketed. As at Mar. 31, 1949, \$104,606,489 had been paid out in benefits and \$38,634,389 collected from the levy.



*Potato Warehouses.*—A policy was inaugurated in 1947 whereby the Federal Department of Agriculture provides cash assistance in respect to potato warehouses constructed by co-operative associations. The assistance is conditional upon the association providing an agreed amount; the Federal Government and the Provincial Government concerned share the remainder. All warehouses must have the approval of a Dominion-Provincial Committee set up for the purpose in each province concerned.

*Cheese and Cheese Factories.*—The Cheese and Cheese Factory Improvement Act was passed in 1939 to encourage the improvement of cheese and cheese factories. Under the provisions of this Act a quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over.

The Act provides for the payment of not over 50 p.c. of the amount actually expended for new material, new equipment and labour utilized in constructing, reconstructing and equipping cheese factories eligible for a subsidy. The Act also provides for paying 50 p.c. of the cost actually expended in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. In order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing equipment necessary for this purpose.

*Farm Credit.*—To provide adequate farm credit, the Canadian Farm Loan Board at present carries on lending operations throughout Canada. Loans may be granted for farm improvements, including the erection of buildings, the purchase of live stock and equipment, farm operating expenses, purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm





lands. For intermediate term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act, 1944.

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act, the Farm Improvement Loans Act, and the Veterans' Land Act.

## *Statistics of Agriculture*

**Income of Farm Operators.**—During 1948 Canadian farmers realized the highest net income from farming operations since 1938, the earliest year for which comparable statistics are available. The preliminary 1948 figure of \$1,693,315,000 is 37 p.c. higher than the figure for 1947 and more than four times the 1938 figure. This income figure includes supplementary payments made, under the provisions of the Prairie Farm Assistance Act, to farmers in the drought-stricken areas of the Prairie Provinces.

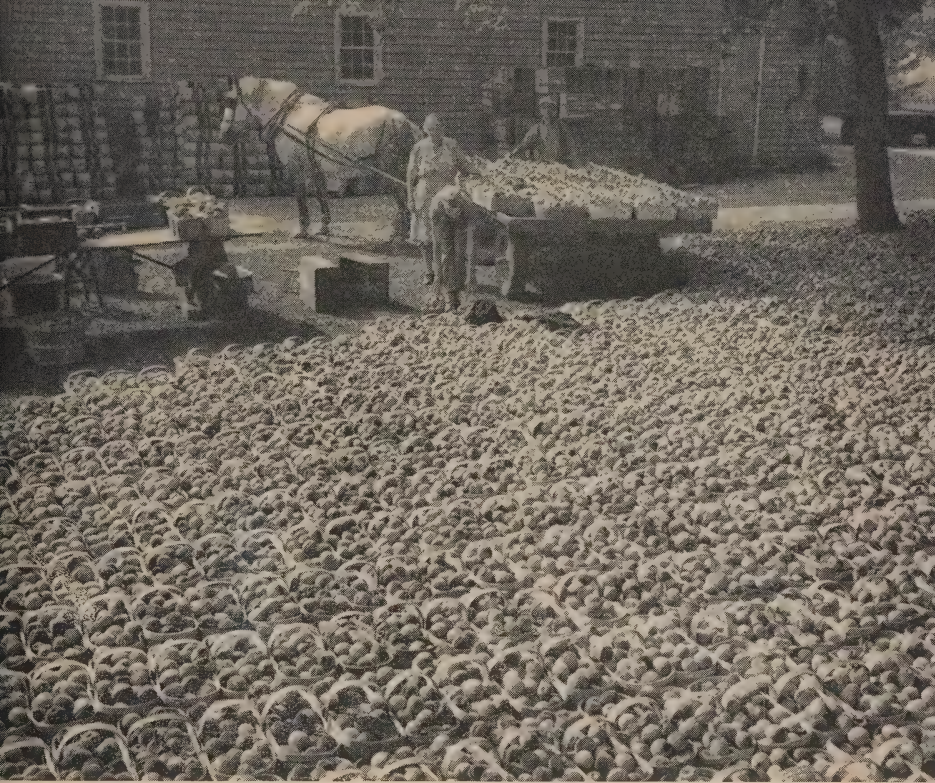
### *Net Income of Farm Operators from Farming Operations, 1946-48*

| Item  | 1946             | 1947             | 1948 <sup>p</sup> |
|---|------------------|------------------|-------------------|
|   | \$'000           | \$'000           | \$'000            |
| 1. Cash income.....   | 1,742,786        | 1,962,276        | 2,449,865         |
| 2. Income in kind.....  | 297,921          | 340,090          | 371,363           |
| 3. Value of changes in inventory.....   | -41,224          | -110,662         | -65,103           |
| <b>4. Gross Income (1 + 2 + 3).....</b>   | <b>1,999,483</b> | <b>2,191,704</b> | <b>2,756,125</b>  |
| 5. Operating expenses and depreciation charges....                              | 855,038          | 968,372          | 1,083,556         |
| 6. Net income excluding supplementary payments<br>(4-5).....                    | 1,144,445        | 1,223,332        | 1,672,569         |
| 7. Supplementary payments.....  | 16,950           | 11,577           | 20,746            |
| <b>8. Net Income of Farm Operators from Farming<br/>Operations (6 + 7).....</b> | <b>1,161,395</b> | <b>1,234,909</b> | <b>1,693,315</b>  |

Annual estimates of cash income from the sale of farm products, the most important income component of net income, represent gross returns from all products sold off farms valued at prices received by farmers. The estimates include those Federal and Provincial Government payments that farmers receive as subsidies to prices but they do not include the supplementary payments defined above. In 1948 this cash income broke all previous records when it reached \$2,449,865,000, a gain of about 25 p.c. over the previous high of \$1,962,276,000 established in 1947.

This gain can be largely attributed to rising prices and the large sums of money distributed by the Canadian Wheat Board and western grain companies in the form of grain equalization and participation payments. During the past year these payments, totalling \$178,590,000, equalled approximately one-third of the gain in the 1948 cash income over 1947.

High levels of domestic purchasing power as a result of full employment and high wages together with a strong world-wide demand for short supplies



*Peaches, grown in the Niagara district of Ontario, ready for shipment.*

of producer and consumer goods were important factors affecting the general level of agricultural prices which averaged almost 20 p.c. higher than in 1947. Early in 1948 it was announced that the United Kingdom had agreed to pay Canada higher prices for purchases of bacon, beef, eggs and cheese. Prices of poultry meat were also strengthened during the year as a result of the lowering of the United States tariff on Jan. 1, 1948, and the subsequent substantial shipments southward. On Apr. 1, 1948, the initial price to prairie wheat producers for No. 1 Northern at the Lakehead was advanced from \$1.35 to \$1.55 per bu. At the same time the Canadian Wheat Board prepared to disburse payments which made this 20-cent boost retroactive to Aug. 1, 1945. In August further strength was injected into live-stock prices with the lifting of export controls which, since September, 1942, had embargoed Canadian shipments into the United States of beef cattle and calves and beef and calf products.

Continued liquidation of Canada's live-stock population during 1948 more than offset an increase in the year-end farm stocks of grain to give a year-end inventory value of farm-held products below that of the previous year. The decline in the inventory of farm products as between the beginning



Seeding time in  
Saskatchewan.

and end of 1948 was valued at \$65,103,000 and compares with the value of such inventory reduction for 1947 of \$110,662,000.

During 1948 farm operating expenses continued to rise. From \$968,372,000 in 1947, they increased to \$1,083,556,000 in 1948, a gain of nearly 12 p.c. While gains were registered for nearly all of the expense items the most significant increase occurred in the case of live-stock feeds which stood at 19 p.c.

### *Cash Income from the Sale of Farm Products, by Provinces, 1946-48*

| Province                  | 1946             | 1947             | 1948                         |
|---------------------------|------------------|------------------|------------------------------|
|                           | \$'000           | \$'000           | \$'000                       |
| Prince Edward Island..... | 17,109           | 17,803           | 22,505                       |
| Nova Scotia.....          | 34,356           | 32,186           | 36,626                       |
| New Brunswick.....        | 35,972           | 38,451           | 44,905                       |
| Quebec.....               | 256,465          | 285,139          | 352,153                      |
| Ontario.....              | 479,705          | 541,274          | 668,353                      |
| Manitoba.....             | 167,253          | 181,390          | 242,882                      |
| Saskatchewan.....         | 387,589          | 429,474          | 520,563                      |
| Alberta.....              | 282,187          | 344,006          | 448,997                      |
| British Columbia.....     | 82,150           | 92,553           | 101,144                      |
| <b>Totals.....</b>        | <b>1,742,786</b> | <b>1,962,276</b> | <b>2,449,865<sup>1</sup></b> |

<sup>1</sup> Includes total adjustment payments made by grain companies on oats and barley delivered by western producers during the period Aug. 1, to Oct. 21, 1947.

### *Cash Income from the Sale of Farm Products, by Sources, 1948*

| Source                                       | Cash<br>Income | Source                              | Cash<br>Income   |
|--|----------------|-------------------------------------|------------------|
|  | \$'000         |                                     | \$'000           |
| Grains, seeds and hay.....                   | 796,528        | Miscellaneous farm products.....    | 45,165           |
| Vegetables and other field crops...          | 155,720        | Forest products sold off farms. . . | 63,097           |
| Live stock.....                              | 802,181        | Fur farming.....                    | 9,699            |
| Dairy products.....                          | 389,598        |                                     |                  |
| Fruits.....                                  | 43,518         | <b>Cash Income from Farm</b>        |                  |
| Eggs, wool, honey and maple<br>products..... | 144,359        | <b>Products.....</b>                | <b>2,449,865</b> |



**Farm Prices.**—As shown in the following table, the index number of farm prices\* reached an all-time high in August, 1948, since when the movement has been generally downward. The annual average for 1948 was the highest on record.

### *Index Numbers of Farm Prices of Agricultural Products by Provinces, 1939-49*

(1935-39 = 100)

| Year and Month | P.E.I. | N.S.  | N.B.  | Que.  | Ont.  | Man.  | Sask. | Alta. | B.C.  | Canada |
|----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1939 Av.....   | 104.6  | 107.6 | 111.4 | 100.4 | 99.2  | 85.6  | 79.9  | 84.9  | 98.8  | 91.8   |
| 1940 Av.....   | 101.6  | 99.6  | 110.1 | 103.7 | 104.2 | 92.8  | 86.5  | 90.6  | 103.6 | 96.8   |
| 1941 Av.....   | 105.2  | 117.1 | 115.5 | 127.4 | 120.2 | 103.7 | 93.8  | 102.8 | 114.5 | 110.2  |
| 1942 Av.....   | 156.2  | 144.1 | 160.4 | 153.4 | 147.0 | 122.2 | 110.5 | 121.7 | 140.6 | 133.1  |
| 1943 Av.....   | 190.3  | 169.1 | 181.4 | 172.6 | 165.0 | 151.3 | 139.9 | 149.9 | 175.9 | 157.8  |
| 1944 Av.....   | 172.7  | 173.3 | 171.9 | 171.7 | 169.1 | 173.1 | 171.4 | 176.9 | 179.7 | 172.4  |
| 1945 Av.....   | 196.7  | 180.8 | 195.3 | 179.5 | 174.6 | 186.3 | 189.4 | 193.4 | 187.9 | 184.2  |
| 1946 Av.....   | 194.2  | 191.1 | 207.7 | 196.9 | 187.9 | 204.3 | 209.5 | 213.2 | 199.0 | 200.8  |
| 1947 Av.....   | 180.3  | 184.6 | 199.6 | 213.7 | 202.1 | 220.8 | 218.3 | 225.2 | 206.8 | 212.5  |
| 1948 Av.....   | 237.9  | 213.1 | 250.6 | 265.6 | 259.3 | 254.6 | 239.3 | 256.2 | 238.0 | 252.6  |
| 1948—          |        |       |       |       |       |       |       |       |       |        |
| Jan.....       | 231.6  | 202.7 | 239.7 | 253.1 | 239.6 | 249.2 | 233.5 | 244.8 | 224.9 | 240.3  |
| Feb.....       | 229.4  | 202.3 | 243.5 | 257.2 | 241.1 | 244.5 | 231.5 | 243.6 | 221.2 | 240.0  |
| Mar.....       | 233.8  | 206.4 | 242.3 | 257.7 | 240.3 | 243.9 | 232.7 | 244.3 | 220.9 | 240.3  |
| Apr.....       | 240.1  | 208.7 | 251.1 | 257.4 | 242.5 | 246.7 | 234.7 | 247.2 | 225.5 | 242.6  |
| May.....       | 279.1  | 214.7 | 266.3 | 263.2 | 246.7 | 252.4 | 237.9 | 251.2 | 228.7 | 247.5  |
| June.....      | 303.2  | 223.1 | 288.6 | 266.3 | 266.3 | 257.7 | 242.1 | 258.0 | 233.0 | 257.4  |
| July.....      | 288.3  | 231.7 | 313.9 | 270.6 | 264.8 | 259.3 | 242.4 | 260.5 | 244.3 | 259.2  |
| Aug.....       | 258.2  | 231.0 | 267.0 | 274.0 | 278.6 | 258.6 | 243.9 | 266.0 | 250.2 | 263.9  |
| Sept.....      | 204.3  | 215.7 | 226.0 | 269.8 | 274.4 | 261.3 | 244.2 | 269.6 | 250.3 | 261.5  |
| Oct.....       | 195.7  | 206.9 | 222.1 | 271.4 | 274.5 | 259.1 | 242.5 | 266.1 | 252.0 | 260.1  |
| Nov.....       | 196.6  | 205.4 | 223.4 | 272.0 | 271.3 | 260.8 | 241.2 | 259.3 | 254.3 | 258.0  |
| Dec.....       | 194.1  | 208.5 | 222.7 | 273.9 | 271.6 | 261.3 | 245.1 | 263.7 | 251.2 | 259.9  |
| 1949—          |        |       |       |       |       |       |       |       |       |        |
| Jan.....       | 196.5  | 213.4 | 227.7 | 273.9 | 267.3 | 260.0 | 243.9 | 260.2 | 247.6 | 257.6  |
| Feb.....       | 200.5  | 215.5 | 224.4 | 271.2 | 260.3 | 257.0 | 240.9 | 254.9 | 242.4 | 253.1  |
| Mar.....       | 199.9  | 212.7 | 223.5 | 267.7 | 256.2 | 253.9 | 240.5 | 256.8 | 242.8 | 251.4  |
| Apr.....       | 197.8  | 208.0 | 219.4 | 259.9 | 254.3 | 254.5 | 241.8 | 261.1 | 243.3 | 250.9  |
| May.....       | 195.5  | 206.8 | 217.1 | 256.4 | 254.1 | 257.3 | 242.7 | 262.1 | 241.0 | 250.9  |
| June.....      | 210.6  | 208.2 | 215.8 | 260.8 | 264.8 | 256.8 | 242.6 | 262.0 | 239.5 | 254.6  |
| July.....      | 214.5  | 207.0 | 216.8 | 260.2 | 265.5 | 253.4 | 240.4 | 260.3 | 243.7 | 253.8  |
| Aug.....       | 248.0  | 219.3 | 232.2 | 261.2 | 261.7 | 248.3 | 237.9 | 262.2 | 248.8 | 253.4  |
| Sept.....      | 211.9  | 208.9 | 229.7 | 260.7 | 260.0 | 248.8 | 236.0 | 252.0 | 245.8 | 249.7  |
| Oct.....       | 195.5  | 209.7 | 217.6 | 257.0 | 257.0 | 242.8 | 233.8 | 251.0 | 245.7 | 246.8  |

### *Field Crops*

**Wheat.**—The crop year 1948-49 brought about for the first time in several years a near balance between world wheat supplies and import requirements. Generally excellent crops were harvested in 1948 with world production of both bread grains and coarse grains reaching considerably higher levels than in 1947. Production also exceeded the 1935-39 average by a substantial margin with improved crops being harvested quite generally in both importing and exporting countries. With this easing of the previously existing tight supply situation, governments of some wheat-importing countries abolished bread rationing while others lowered the compulsory extraction rate in flour milling and considerably reduced the amounts of coarse grains which were formerly mixed with bread grains in the manufacture of flour. These two actions provided larger quantities of milling offals and coarse grains for live-stock feed, and so promoted an expansion of live-stock production. The optimism generated by increased available supplies led to the

\* A description of this index, its coverage and the methods used, will be found in the "Quarterly Bulletin of Agricultural Statistics" for October-December, 1946, published by the Dominion Bureau of Statistics.

dissolution of the world allocating agency, the International Emergency Food Council of the Food and Agriculture Organization.

Canada's wheat acreage for 1949 was 27,500,000 acres, 3,400,000 greater than the 1948 acreage. Despite this, the 367,000,000 bu. wheat harvest was down 26,000,000 bu. from 1948 and was 43,000,000 bu. below the ten-year average (1939-48). Unfavourable weather and moisture conditions over wide areas of the prairie during the growing season were responsible for the reduced 1949 crop. In the Prairie Provinces the 1949 wheat crop was 337,000,000 bu. as compared with 363,000,000 bu. in 1948 and 386,000,000 bu. for the ten-year average. Wheat production for the rest of Canada reached 30,000,000 bu. with Ontario's outturn placed at 26,000,000 bu.

The lower 1949 outturn was partially offset by increased carry-over stocks at the beginning of the current crop year, total supplies being nearly equal to those of 1948-49. In the crop year ended July 31, 1949, Canada's total wheat supplies were 471,000,000 bu., comprised of July 31, 1948, carry-over stocks in all positions of 78,000,000 bu. and the 1948 crop of 393,000,000. Carry-over stocks of 99,000,000 bu. at July 31, 1949, together with the production of 367,000,000 bu., give a supply in 1949-50 of 466,000,000. Domestic disappearance is expected to be about 147,000,000 bu. this crop year, leaving 319,000,000 bu. for export and carry-over.

*Price.*—Effective Apr. 1, 1949, the initial price of wheat to western producers was increased 20 cents per bushel bringing the initial payment up to \$1.75 per bushel, basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. The increase was made retroactive and applies to all western wheat delivered to the Canadian Wheat Board in the five-year pool period from Aug. 1, 1945, to July 31, 1950. During 1949-50, the fourth and final year of the Canada-United Kingdom Wheat Agreement will be completed. The Agreement calls for the shipment of the equivalent of 140,000,000 bu. of wheat to the United Kingdom during the crop year. At the outset of the 1948-49 crop year both the domestic sales price of western wheat and the price under the United Kingdom contract were raised to \$2.00 per bushel plus a 5-cent carrying charge, basis Fort William-Port Arthur or Vancouver. From Aug. 1, 1948, until Mar. 22, 1949, millers and other processors of wheat for human consumption in Canada received a rebate (45 cents per bushel in August and 46½ cents thereafter) as a subsidy to domestic consumers. This rebate was discontinued effective midnight Mar. 22. Prices for domestic use and for export to the United Kingdom remained unchanged until Oct. 1, 1949, when 1 cent per bushel was added to the carrying charge raising the total price both for the final year of the United Kingdom contract and to the domestic consumer to \$2.06 per bu.

The International Wheat Agreement became effective Aug. 1, 1949, committing Canada to supply 203,100,000 bu. of wheat although this figure may be varied depending on the final number of signatory countries. The agreement is to last four years with maximum and minimum prices being fixed for each year. Transactions outside the agreed range of prices will be entirely free, but they will not count toward fulfilment of the obligations assumed by signatory countries. The basic maximum price was originally set at \$1.80 (Canadian currency) per bushel basis No. 1 Northern in store Fort William-Port Arthur for all four years of the agreement, with minimum prices starting at \$1.50 in the 1949-50 crop year and decreasing by 10 cents in each successive

year of the agreement. As a result of the 10 p.c. devaluation of the Canadian dollar on Sept. 20, these prices were advanced by 10 p.c. making the maximum for the current crop year \$1.98 per bu. and the minimum \$1.65. The basic minimum and maximum prices under the I.W.A. do not include such carrying charges as may be agreed upon by buyers and sellers. In the fall of 1949 Canada was adding a 5-cent per bu. carrying charge to the basic price.

*Production, Imports and Exports of Wheat, Years Ended  
July 31, 1940-50*

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of  $4\frac{1}{2}$  bu. to the barrel of 196 lb. of flour.

| Year ended July 31— | Production <sup>1</sup> | Imports of<br>Wheat<br>and Flour | Exports of<br>Wheat<br>and Flour |
|---------------------|-------------------------|----------------------------------|----------------------------------|
|                     | '000 bu.                | bu.                              | bu.                              |
| 1940.....           | 520,623                 | 444,369                          | 192,674,369                      |
| 1941.....           | 540,190                 | 122,798                          | 231,206,245                      |
| 1942.....           | 314,825                 | 29,102                           | 225,828,432                      |
| 1943.....           | 556,684                 | 3,023                            | 214,700,901                      |
| 1944.....           | 284,460                 | 432,931                          | 343,755,319                      |
| 1945.....           | 416,635                 | 404,547                          | 342,945,515                      |
| 1946.....           | 318,512                 | 74,765                           | 343,185,751 <sup>2</sup>         |
| 1947.....           | 413,725                 | 15,584                           | 239,420,837 <sup>2</sup>         |
| 1948.....           | 341,758                 | 824,677                          | 194,982,342 <sup>2</sup>         |
| 1949.....           | 393,345                 | 288,881                          | 232,329,336 <sup>2</sup>         |
| 1950.....           | 367,406                 | ..                               | ..                               |

<sup>1</sup> Previous year's harvested crop.                      <sup>2</sup> Exports of flour for the period August, 1945, to July, 1949, have been revised to remove effect of time-lag in returns made by customs.

*"Combining" swathed wheat in Alberta.*





**Coarse Grains.—Oats.**—Oat production in Canada for the crop year 1949-50 was estimated at 317,000,000 bu. This was 12 p.c. less than the 1948 crop, 30 p.c. below the 454,000,000 average for the wartime period of 1943-45 and 20 p.c. below the ten-year (1940-49) average of 409,400,000 bu. The area sown to oats was 11,400,000 acres, slightly above the 11,200,000 acres of a year ago, though considerably below the 1943-45 wartime average of 14,700,000. However, taking into consideration the carry-over of 59,000,000 bu. at the beginning of the 1949-50 crop year, the estimated total oat supply in Canada for 1949-50 amounts to 376,000,000 bu., about 8 p.c. less than the 1948-49 supply of 407,000,000. Production per acre for 1949 dropped to 28 bu. as compared with 32 bu. for 1948.

Commercial supplies of western oats for the 1948-49 crop year amounted to 94,000,000 bu. comprised of the commercial carry-over of 10,000,000 bu., plus farmers' marketings of 84,000,000 bu. Disposition of these supplies was as follows: exports (including rolled oats and oatmeal), 23,000,000, carry-over at July 31, 1949, 11,000,000—leaving 60,000,000 bu. for domestic use. Of this quantity 47,000,000 bu. were shipped under the freight assistance plan, the remaining 13,000,000 disappearing into other domestic channels. Commercial supplies for the 1949-50 crop year are estimated at 86,000,000 bu. comprised of 11,000,000 bu. carry-over at July 31 and estimated farmers' marketings of 75,000,000 bu.

**Barley.**—Production of barley at an average rate of 20 bu. per acre gave a total harvest of 120,000,000 bu., some 29 p.c. below the 1948 outturn. Yields per acre for 1949 and 1948 were, respectively, 20.0 and 23.9 bu. The 1949 acreage of barley was 6,000,000, down about one-half million from 1948. Carry-over stocks of barley at the beginning of the 1949-50 crop year were about 2,500,000 bu. below those of the previous year. Thus barley supplies for the current crop year amount to only 149,000,000 bu., about 20 p.c. less than last year and 37 p.c. below average stocks for the wartime period (1943-45). Current crop-year supplies, however, are still 54 p.c. above the pre-war (1935-39) average level of 97,000,000 bu. Commercial supplies of western barley for the 1948-49 crop year amounted to 83,200,000 bu. (commercial carry-over of 14,100,000 plus farmers' marketings of 69,100,000 bu.). Exports were 21,700,000 and July 31, 1949, carry-over was 10,500,000—leaving 51,000,000 bu. for domestic use. Of this quantity, 31,500,000 bu. were shipped under the freight assistance plan, the remainder disappearing into other domestic channels, including malting and brewing. Commercial supplies for the 1949-50 crop year are estimated at only 66,500,000 bu., comprised of the 10,500,000 carry-over at July 31 and estimated farmers' marketings of 56,000,000. bu.

**Oat and Barley Prices.**—Effective Aug. 1, 1949, the Canadian Wheat Board set up oat and barley marketing pools with initial payments to producers based on existing floor-price levels. At the beginning of the crop year these initial pools were based on 61½ cents per bu. for oats and 90 cents for barley, both for No. 1 feed grades in store Fort William-Port Arthur less all charges before delivery in store at the Lakehead. Related initial payments were set up for other grades. At the time of delivery and sale producers receive certificates entitling them to share in any surpluses accumulated by the Board in the sale of oats and barley delivered to the Board between Aug. 1, 1949, and July 31, 1950.



*Harvesting an Ontario grain crop.*

*Rye.*—The 1949 acreage of rye in Canada dropped about 9,000,000 acres from the 1948 level, a decline of 44 p.c. Increased stocks on hand at July 31, 1948, of 12,000,000 bu., third largest on record, together with sagging price levels at seeding time, were largely responsible for the sharp drop in acreage. Adverse weather combined with the greatly reduced acreage resulted in a crop of only 10,000,000 bu. compared with 25,000,000 bu. in 1948. Despite this decrease, supplies at 22,000,000 bu. for the current crop year are down only 4,000,000 from last year due to the high level of carry-over stocks on Aug. 1, 1949 (11,000,000 bu. greater than on Aug. 1, 1948). Rye is traded freely on the open market, with No. 1 C.W. being quoted at \$1.48 $\frac{5}{8}$  per bushel, basis Fort William-Port Arthur on Nov. 14, 1940.

*Flaxseed.*—Both the 1949 acreage and production of flax were down sharply to 300,000 acres and 2,300,000 bu. from the 1948 level of 1,900,000 acres and 17,700,000 bu. Total supplies of flax for the current crop year, including carry-over, amount to 13,000,000 bu. as against 21,000,000 for the 1948-49 crop year. For the crop year 1949-50 producers of flaxseed in Western Canada have the option of marketing through a voluntary producers' pool operated by the Canadian Wheat Board, or of selling on the open market.

If flax is put into the pool, producers are guaranteed an initial payment of \$2.50 per bushel, basis No. 1 C.W. in store Fort William-Port Arthur. Open market prices have held well above this level and on Nov. 14, No. 1 C.W. flax in store Fort William-Port Arthur was quoted at \$3.75 per bushel.

### *Acreages, Production and Values of Field Crops, 1948 and 1949*

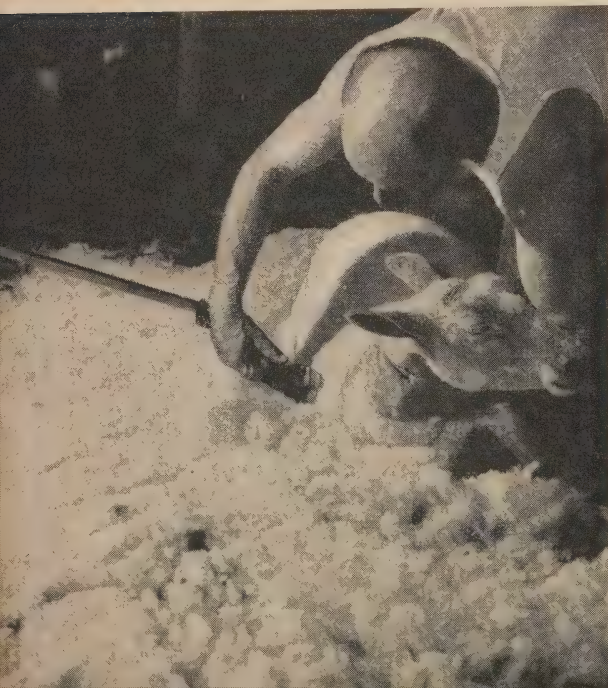
| Crop                             | Revised Estimate 1948 Crops |            |                  | Third Estimate 1949 Crops |            |                               |
|----------------------------------|-----------------------------|------------|------------------|---------------------------|------------|-------------------------------|
|                                  | Area                        | Production | Gross Farm Value | Area                      | Production | Gross Farm Value <sup>1</sup> |
|                                  | '000 acres                  | '000 bu.   | \$'000           | '000 acres.               | '000 bu.   | \$'000                        |
| Wheat.....                       | 24,106                      | 393,345    | 623,011          | 27,541                    | 367,406    | 566,620                       |
| Oats.....                        | 11,200                      | 358,807    | 254,525          | 11,389                    | 316,558    | 201,453 <sup>2</sup>          |
| Barley.....                      | 6,495                       | 155,018    | 149,991          | 6,017                     | 120,383    | 103,282 <sup>2</sup>          |
| Rye.....                         | 2,103                       | 25,340     | 33,261           | 1,182                     | 10,011     | 12,307 <sup>2</sup>           |
| Peas, dry.....                   | 82                          | 1,477      | 4,328            | 58                        | 934        | 2,605                         |
| Beans, dry.....                  | 92                          | 1,641      | 6,836            | 93                        | 1,780      | 6,199                         |
| Soy beans.....                   | 94                          | 1,824      | 4,195            | 104                       | 2,605      | 5,887                         |
| Buckwheat.....                   | 186                         | 4,031      | 4,982            | 170                       | 3,530      | 4,263                         |
| Mixed grains.....                | 1,542                       | 61,947     | 60,317           | 1,683                     | 55,710     | 53,075                        |
| Flaxseed.....                    | 1,876                       | 17,683     | 67,315           | 321                       | 2,262      | 7,735                         |
| Corn, shelled.....               | 252                         | 12,417     | 16,369           | 272                       | 13,650     | 16,766                        |
|                                  |                             | '000 cwt.  |                  |                           | '000 cwt.  |                               |
| Potatoes.....                    | 508                         | 55,260     | 91,837           | 510                       | 54,318     | 86,909                        |
| Turnips, etc. <sup>3</sup> ..... | 110                         | 22,807     | 22,257           | 106                       | 19,605     | 21,563                        |
|                                  |                             | '000 tons  |                  |                           | '000 tons  |                               |
| Hay and clover.....              | 9,748                       | 16,073     | 254,769          | 9,502                     | 12,240     | 230,128                       |
| Alfalfa.....                     | 1,317                       | 3,022      | 51,412           | 1,489                     | 2,606      | 52,770                        |
| Fodder corn.....                 | 539                         | 5,051      | 28,639           | 567                       | 5,510      | 34,887                        |
| Grain hay.....                   | 848                         | 1,204      | 12,880           | 740                       | 914        | 11,301                        |
| Sugar beets.....                 | 60                          | 629        | 9,094            | 84                        | 855        | 9,168 <sup>4</sup>            |

<sup>1</sup> First estimate of value. payments will increase these values.

<sup>2</sup> Based on initial payments only. Later participation

<sup>3</sup> Excluding production in the Prairie Provinces.

<sup>4</sup> Initial payment except for Ontario.



Canada's wool production in 1948 amounted to 12,000,000 lb., which was only about 12 p.c. of her consumption of wool for that year.





*Beef cattle in Western Canada.*

**Live Stock.**—Numbers of live stock on farms in Canada are shown for recent years in the following table.

*Numbers of Principal Species of Live Stock on Farms, June 1, 1940-49*

| Year      | Horses | Cattle | Hogs  | Sheep and Lambs |
|-----------|--------|--------|-------|-----------------|
|           | '000   | '000   | '000  | '000            |
| 1940..... | 2,780  | 8,380  | 6,002 | 2,887           |
| 1941..... | 2,789  | 8,517  | 6,081 | 2,840           |
| 1942..... | 2,816  | 8,945  | 7,125 | 3,197           |
| 1943..... | 2,775  | 9,665  | 8,148 | 3,459           |
| 1944..... | 2,735  | 10,346 | 7,741 | 3,726           |
| 1945..... | 2,585  | 10,759 | 6,026 | 3,622           |
| 1946..... | 2,200  | 9,665  | 4,910 | 2,942           |
| 1947..... | 2,032  | 9,718  | 5,473 | 2,707           |
| 1948..... | 1,904  | 9,476  | 4,463 | 2,247           |
| 1949..... | 1,796  | 9,081  | 5,163 | 2,075           |

Live-stock production in Canada expanded during the years 1941 to 1945 in response to the increasing call on this hemisphere to meet world needs. Hog numbers reached their peak in 1943 with 8,148,000 on farms, cattle in

1945 with 10,759,000, and sheep in 1944 with 3,726,000. Since these peaks were reached, declines have been rapid. While cattle declined about 15 p.c. since 1945, the number in 1949 was still considerably above the 1939 level. Hog numbers dropped 36 p.c. from their peak, but showed a slight increase over 1948. The decline in the numbers of sheep has been continuous and rapid and in 1949 there were fewer sheep than recorded in any official count or estimate since Confederation.

**Poultry and Eggs.**—The estimated total number of domestic fowl—hens, cocks and chickens—on farms in Canada at June 1, 1948 was 69,678,400. There were 2,065,800 turkeys, 368,300 geese and 468,400 ducks. These figures are the lowest since 1942 for domestic fowl, the lowest since 1935 for turkeys and the lowest ever recorded for geese and ducks at that period of the year. High cost of feed and the sharp decline in the United Kingdom market for Canadian poultry meat were contributing causes of the decline.

The production in 1948 of farm poultry meat declined to 249,326,000 lb. from 301,389,000 lb. in 1947, and the production of farm eggs declined to 356,166,000 doz. from 373,696,000 doz.

### *Farm Poultry-Meat and Farm-Egg Production, by Economic Areas, 1947 and 1948*

| Economic Area and Year | Poultry-Meat Production |                    |                | Egg Production       |                    |                    |
|------------------------|-------------------------|--------------------|----------------|----------------------|--------------------|--------------------|
|                        | Marketed                | Farm-Home Consumed | Total          | Sold for Consumption | Farm-Home Consumed | Total <sup>1</sup> |
|                        | '000 lb.                | '000 lb.           | '000 lb.       | '000 doz.            | '000 doz.          | '000 doz.          |
| Maritimes.....1947     | 12,140                  | 6,693              | 188,833        | 18,909               | 5,509              | 24,780             |
| 1948                   | 9,910                   | 4,289              | 14,199         | 19,902               | 5,710              | 25,959             |
| Que. and Ont....1947   | 127,160                 | 27,341             | 154,501        | 177,568              | 31,747             | 215,434            |
| 1948                   | 112,967                 | 21,336             | 134,303        | 169,367              | 29,130             | 201,462            |
| Prairies.....1947      | 62,578                  | 46,766             | 109,344        | 74,831               | 23,724             | 104,416            |
| 1948                   | 52,341                  | 33,129             | 85,470         | 75,698               | 21,670             | 100,554            |
| B.C.....1947           | 15,680                  | 3,031              | 18,711         | 24,937               | 2,810              | 29,066             |
| 1948                   | 12,515                  | 2,839              | 15,354         | 24,327               | 2,655              | 28,191             |
| <b>Totals.....1947</b> | <b>217,558</b>          | <b>83,831</b>      | <b>301,389</b> | <b>296,245</b>       | <b>63,790</b>      | <b>373,696</b>     |
| <b>1948</b>            | <b>187,733</b>          | <b>61,593</b>      | <b>249,326</b> | <b>287,294</b>       | <b>59,165</b>      | <b>356,166</b>     |

<sup>1</sup> Includes eggs sold for hatching and used for hatching on farms.

**Dairying.**—The upward trend in the production of dairy products which developed during the Second World War now appears to have reached a position of relative stability. This wartime expansion was stimulated by the payment of subsidies and after these were finally discontinued in 1946 the higher producer prices subsequently established, coupled with a wider demand for dairy products helped to maintain production well above pre-war levels. During 1949, however, price recessions developed which may be attributed in part to a contraction in overseas markets. Shortage of United States dollars and the consequent decline in exports from Canada is tending to focus greater attention on the domestic market, and on the development of new markets on the American continent. The contract with Britain which called for the delivery of 50,000,000 lb. of cheese during the year ended Mar. 31, 1949, was





*R.O.P. Leghorn breeding cockerels, Surrey, B.C.*

renewed at the same price (30 cents f.o.b. factory) for the year ended Mar. 31, 1950. Owing to a considerable increase in production, this contract was filled by the middle of August, 1949, thus providing greater supplies of cheese for domestic use than for many years past. The decline in exports had a depressing effect on the market for concentrated milk products, and the subsequent decline in prices was reflected in lower factory production during 1949. The distribution of fluid milk is being well maintained and both sales and prices appear to have become more or less stabilized during the year.

*Milk Production.*—The farm milk supply in 1948 declined to approximately 16,645,000,000 lb., as compared with 17,241,000,000 lb. in the previous year. Production in 1948 was approximately 982,000,000 lb. below the all-time high point of 17,627,000,000 lb. in 1945. The decline in 1948 as compared with the previous year was shared by all provinces except Prince Edward Island, New Brunswick and British Columbia, where the production is comparatively small.

*Butter Production.*—The total butter production of approximately 347,000,000 lb. in 1948 was practically on a par with that of the previous year. This includes 284,000,000 lb. of creamery butter and 63,000,000 lb. of dairy butter. The decline of 6,521,000 lb. in the former was offset by an increase of





*Dairy cows on a Quebec farm.*

6,548,000 lb. in the latter. During the first nine months of 1949, the creamery butter make of 228,000,000 lb. was approximately 4,000,000 lb. less than for the same period of 1948.

*Cheese Production.*—The output of cheddar cheese in 1948 amounted to approximately 87,000,000 lb., representing a decline of 35,000,000 lb. from the previous year. Due to the favourable prices paid for cheese milk as compared with butter-fat, a significant recovery took place in 1949. The output of 90,000,000 lb. during the January-September period represents an increase of over 18 p.c. as compared with the same period of 1948.

*Income and Values.*—The income received by farmers for the sale of dairy products amounted to approximately \$390,000,000 in 1948 as compared with \$326,000,000 in 1947. This was the highest income on record and represented an average gross return to farmers of \$2.94 per hundred lb. of milk; it represented 16 p.c. of the total farm cash income as against 22 p.c. ten years ago. During 1949 price recessions have developed in all the principal products.

The total farm value of milk production in 1948 was \$485,000,000 as against \$403,000,000 in 1947, and the total value of all products, including whole milk and manufactured products, was \$619,000,000 compared with \$532,000,000 in 1947.

*Domestic Disappearance.*—The consumption of milk in Canada is being maintained at a slightly lower level than that which prevailed during the war

period when subsidies were in effect. In 1948, the daily per capita consumption was estimated at 0.90 pint as compared with 0.97 pint in 1947 and 1.02 pints in 1946 and 1945. The domestic disappearance of butter, estimated at 28.61 lb. per capita in 1948, was slightly higher than that of the previous year, but was still well below the 33.7 lb. recorded in 1942. The domestic disappearance of cheese was 3.63 lb. per capita in 1948 as compared with 5.25 lb. in 1947. Concentrated whole milk products registered a gain in 1948, the per capita disappearance of 17.63 lb. being compared with 16.50 lb. in the previous year. Concentrated milk by-products declined from 4.58 lb. per capita in 1947 to 4.05 lb. in 1948. All products, in terms of milk, showed a decrease of nearly 30 lb. per capita from the total of 1,235 lb. recorded in 1947.

### *Dairy Production, by Economic Areas, 1947 and 1948*

| Economic Area<br>and Year | Milk             |                   | Milk Products  |               |                            |                      |
|---------------------------|------------------|-------------------|----------------|---------------|----------------------------|----------------------|
|                           | Fluid<br>Sales   | Total<br>Milk     | Butter         |               | Cheddar<br>Cheese          | Evapor-<br>ated Milk |
|                           |                  |                   | Creamery       | Dairy         |                            |                      |
|                           | '000 lb.         | '000 lb.          | '000 lb.       | '000 lb.      | '000 lb.                   | '000 lb.             |
| Maritimes.....1947        | 234,513          | 1,059,276         | 17,260         | 8,014         | 1,407                      | 4,082                |
| 1948                      | 226,346          | 1,077,375         | 17,765         | 8,881         | 1,426                      | 2,986                |
| Que. and Ont....1947      | 2,943,767        | 10,733,941        | 174,531        | 16,303        | 113,148                    | 169,611              |
| 1948                      | 2,830,366        | 10,269,578        | 170,464        | 19,854        | 79,500                     | 202,490              |
| Prairies.....1947         | 659,817          | 4,819,484         | 94,722         | 30,281        | 6,864                      | 13,698               |
| 1948                      | 639,437          | 4,666,108         | 91,881         | 32,509        | 5,341                      | 14,096               |
| B.C.....1947              | 324,442          | 628,087           | 4,439          | 1,697         | 533                        | 24,438               |
| 1948                      | 319,583          | 632,080           | 4,321          | 1,599         | 431                        | 31,759               |
| <b>Totals.....1947</b>    | <b>4,162,539</b> | <b>17,240,788</b> | <b>290,952</b> | <b>56,295</b> | <b>121,952<sup>1</sup></b> | <b>211,829</b>       |
| <b>1948</b>               | <b>4,015,732</b> | <b>16,645,141</b> | <b>284,431</b> | <b>62,843</b> | <b>86,698<sup>1</sup></b>  | <b>251,331</b>       |

<sup>1</sup> Total cheese production amounted to 125,571,000 lb. in 1947 and 89,511,000 lb. in 1948.

### *Special Crops*

**Honey.**—Since 1945 there has been a downward trend in the number of beekeepers in Canada. Many people who kept bees to bolster their limited supplies of sugar, jam and jelly during the War have gradually disposed of them leaving the field to commercial producers. Production in 1948 was at a near record level as a result of very favourable climatic conditions in all provinces but British Columbia. With a crop of 45,145,000 lb. to dispose of, it was apparent that much of it would not be sold before the new crop came on the market in 1949 and the Federal Government offered to buy up to 5,000,000 lb. of graded honey. There was a carry-over on Apr. 1, 1949, of 9,879,408 lb. and this coupled with a sharp decline in prices resulted in a further reduction of beekeepers and colonies. Total production (estimated October 1949) was 31,286,000 lb., 31 p.c. below the 1948 level. Production in 1949, by provinces, with comparable data for 1948 was: Prince Edward Island, 63,000 lb. (64,000 lb.); Nova Scotia, 96,000 lb. (125,000 lb.); New Brunswick, 160,000 lb. (200,000 lb.); Quebec, 3,357,000 lb. (4,831,000 lb.); Ontario, 10,655,000 lb. (15,736,000 lb.); Manitoba, 4,800,000 lb. (6,525,000 lb.); Saskatchewan, 5,200,000 lb. (6,492,000 lb.); Alberta, 6,050,000 lb. (10,254,000 lb.); and British Columbia, 905,000 lb. (918,000 lb.).

**Maple Products.**—The greatest volume of maple sugar and maple syrup is produced in the Eastern Townships of the Province of Quebec. The bulk of the exports come from this area and go chiefly to the United States in the form of maple sugar. In Nova Scotia, New Brunswick and Ontario most of the syrup is sold in consumer containers and the sugar in one-pound blocks while in Quebec a considerable volume of syrup is sold in large containers weighing about 500 lb. This syrup is bought by processing plants which bottle it. Quebec 'bag' sugar is sold in blocks varying widely in shape and size and may weigh as much as 50 lb. This sugar is used by the processing plants for blending purposes and is the type that makes up most of the exports. Production of maple syrup in 1949 with comparable data for 1948 in parentheses was: Nova Scotia, 6,000 gal. (8,000 gal.); New Brunswick, 7,000 gal. (12,000 gal.); Quebec, 1,894,000 gal. (1,750,000 gal.); Ontario, 399,000 gal. (389,000 gal.). Production of maple sugar in 1949 with comparable data for 1948 in parentheses was: Nova Scotia, 13,000 lb. (16,000 lb.); New Brunswick, 81,000 lb. (124,000 lb.); Quebec, 1,651,000 lb. (2,187,000 lb.); Ontario, 42,000 lb. (23,000 lb.). The total crop in 1949 of sugar and syrup, expressed as syrup, amounted to 2,485,000 gal. and production in 1948 amounted to 2,394,000 gal.

**Sugar Beets.**—There were 84,200 acres of sugar beets (Nov. 17) harvested in 1949, the largest area on record. Increases in acreage over 1948 were reported in all provinces growing beets for sugar—Quebec, Ontario, Manitoba and Alberta. Processing plants are located at St. Hilaire, Que.; Wallaceburg and Chatham, Ont.; Fort Garry, Man.; and Taber and Picture Butte, Alta. The acreages, by provinces, in 1949 with data for 1948 in parentheses was: Quebec, 6,300 acres (2,900 acres); Ontario, 30,100 acres (18,400 acres); Manitoba, 15,500 acres (9,500 acres); Alberta, 32,300 acres (29,200 acres). The increase in acreage in 1949 more than overcame a slight decline in average yield per acre and the total harvest amounted to 855,000 tons or 36 p.c. more than was harvested in 1948 and 32 p.c. more than the ten-year (1939-48) average crop. Dry weather early in the season in Ontario made necessary some replanting but the loss in acreage from this cause was negligible. Dry weather and fall frosts affected the growth of the crop in Alberta and resulted in a downward adjustment in the anticipated yields. Late season second-growth of the roots had the effect of lowering the sugar content.

**Seeds.**—Production of all types of hay and pasture seeds was considerably lighter in 1949 (Nov. 28) than in the previous season. Late frost and drought in many of the important seed-producing areas were contributing factors. The prolonged hot, dry weather in Ontario and Quebec resulted in a light hay crop and a shortage of summer pasture, so that a considerably reduced area of red clover, alsike clover and timothy was retained for seed. In the Prairie Provinces climatic conditions varied widely. Drought in late May and early June accompanied by damaging late frosts reduced the yields of all grass and most legume seed crops. In addition a large area, including southwestern Saskatchewan and eastern Alberta, suffered severely from drought throughout the summer. Production by kinds in 1949 with comparable data for 1948 in parentheses was: alfalfa, 8,718,000 lb. (21,385,000 lb.); red



clover, 4,855,000 lb. (16,086,000 lb.); alsike, 2,564,000 lb. (9,400,000 lb.); sweet clover, 21,754,000 lb. (28,840,000 lb.); timothy, 5,108,000 lb. (5,634,000 lb.); brome grass, 6,050,000 lb. (7,944,000 lb.); crested wheat grass, 300,000 lb. (676,000 lb.); creeping red fescue, 1,200,000 lb. (1,558,000 lb.); Canadian blue grass, 140,000 lb. (250,000 lb.); Kentucky blue grass, 80,000 lb. (580,000 lb.); western rye grass, 123,000 lb. (115,000 lb.); bent grass 2,000 lb. (4,000 lb.).

Total production of vegetable and field-root seeds was also lighter in 1949. While most kinds yielded heavier crops, others which normally make up the bulk of production—beans, corn and peas—were much lighter. Production in 1949 with comparable data for 1948 in parentheses was: asparagus, 20,240 lb. (4,120 lb.); bean, 1,787,650 lb. (2,366,200 lb.); beet, 18,100 lb. (18,600 lb.); cabbage, 1,940 lb. (1,320 lb.); carrot, 52,100 lb. (54,600 lb.); cauliflower, 700 lb. (440 lb.); corn, 225,100 lb. (236,500 lb.); cucumber, 17,500 lb. (18,300 lb.); leek, 850 lb. (800 lb.); lettuce, 27,050 lb. (14,700 lb.); mangel, 72,680 lb. (133,900 lb.); muskmelon, 880 lb. (1,580 lb.); onion, 69,000 lb. (39,700 lb.); parsnip, 3,320 lb. (3,200 lb.); pea, 5,013,000 lb., (14,154,000 lb.); pepper, 230 lb. (190 lb.); pumpkin, 1,900 lb. (3,300 lb.); radish, 21,900 lb. (13,600 lb.); spinach, 13,400 lb. (11,800 lb.); squash and marrow, 3,800 lb. (6,520 lb.); sugar beet, 402,800 lb. (296,300 lb.); swede, 57,000 lb. (23,900 lb.); swiss chard, nil (500 lb.); tomato, 3,780 lb. (2,520 lb.).

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*Bagging onions, Kelowna, B.C.*



**Fruit.**—Fruit is produced on a commercial scale in Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. Some cultivated fruits are grown in a limited way in the other provinces but no annual estimates of production are attempted. In addition to the cultivated fruits large quantities of native fruits are harvested, particularly in Eastern Canada, but no complete data on production each year is available.

The outlook for the fruit crops in the spring of 1949 was very favourable except for berries in British Columbia. In the Eastern Provinces dry, hot weather during July and August reduced the strawberry, raspberry and early tree-fruit yields. Advance estimates of production of the other fruits were also cut. The weather turned cool and abundant rain fell during September and October with the result that fruit still had to be harvested, with the exception of grapes in Ontario, gained size rapidly and the estimates were raised accordingly. The grape crop, which is produced almost entirely in Ontario, was the smallest in some years. The November, 1949, estimates of production with final estimates for 1948 in parentheses were: apples, 17,339,000 bu. (13,404,000 bu.); pears, 996,000 bu. (789,000 bu.); plums and prunes, 796,000 bu. (671,000 bu.); peaches, 2,034,000 bu. (1,760,000 bu.); apricots, 182,000 bu. (152,000 bu.); cherries 442,000 bu. (392,000 bu.); strawberries, 25,594,000 qt. (32,950,000 qt.); raspberries, 10,936,000 qt. (15,657,000 qt.); loganberries, 1,244,000 lb. (2,261,000 lb.); and grapes, 34,148,000 lb. (57,623,000 lb.).

During the five-year period 1935-39, the average exports of apples from Canada amounted to approximately 40 p.c. of the crop. The chief market in those days was the United Kingdom. During the War a shortage of shipping practically cut Canada off from this market and growers were forced to look elsewhere for foreign outlets. Since 1945, exchange difficulties have interfered with the re-establishment of the British market for Canadian apples and it was not until 1949 that any sizeable shipments were made. The exports this season were the result of an arrangement between the British and



*Vineyard worker carefully ties grape vine branches to supporting wires. This operation is conducted in early spring and is done in conjunction with pruning.*





*Apple harvest in the Annapolis Valley, N.S.*

Canadian Governments whereby Britain agreed to take 400,000 bbl. of Nova Scotia and 434,000 boxes of British Columbia apples for which the Canadian authorities paid 50 p.c. of the cost.

*Values of Fruits Produced, 1945-48, with Averages, 1940-44*

| Fruit                 | Average<br>1940-44 | 1945       | 1946       | 1947       | 1948       |
|-----------------------|--------------------|------------|------------|------------|------------|
|                       | \$                 | \$         | \$         | \$         | \$         |
| Apples.....           | 14,453,000         | 12,857,000 | 27,196,000 | 22,840,000 | 22,631,000 |
| Pears.....            | 1,367,000          | 1,582,000  | 2,278,000  | 2,178,000  | 2,185,000  |
| Plums and prunes....  | 881,000            | 1,270,000  | 1,755,000  | 1,471,000  | 1,889,000  |
| Peaches.....          | 2,978,000          | 4,502,000  | 5,356,000  | 4,128,000  | 4,953,000  |
| Apricots.....         | 224,000            | 319,000    | 446,000    | 327,000    | 629,000    |
| Cherries.....         | 1,410,000          | 1,724,000  | 2,113,000  | 2,128,000  | 2,863,000  |
| Totals, Tree Fruits.. | 21,313,000         | 22,254,000 | 39,144,000 | 33,072,000 | 35,150,000 |
| Strawberries.....     | 2,390,000          | 4,186,000  | 4,498,000  | 5,404,000  | 6,821,000  |
| Raspberries.....      | 1,885,000          | 3,147,000  | 3,364,000  | 4,354,000  | 3,279,000  |
| Grapes.....           | 1,653,000          | 2,543,000  | 3,160,000  | 3,568,000  | 2,559,000  |
| Loganberries.....     | 143,000            | 140,000    | 222,000    | 213,000    | 340,000    |
| Totals, Small Fruits. | 6,071,000          | 10,016,000 | 11,244,000 | 13,539,000 | 12,999,000 |
| Totals, All Fruits..  | 27,384,000         | 32,270,000 | 50,388,000 | 46,611,000 | 48,149,000 |





## ★ Forestry

Canada's forests (exclusive of Newfoundland) cover an area of 1,290,960 sq. miles, or 37 p.c. of the total land area of the country, but a considerable part of these vast forests is not suitable for commercial operations, either because it is too difficult and expensive to reach or because the tree growth is not of satisfactory size and quality. The present accessible productive portion of the forest covers 435,000 sq. miles and it is from this area that the whole output of sawlogs, pulpwood, fuelwood and other primary products is obtained. About 378,000 sq. miles of forest, classed as productive but not at present accessible, form a reserve for the future when transportation systems may be more highly developed.

By far the larger part of the world demand for wood is for softwood, or coniferous species. Canada possesses the principal reserves of softwoods within the Commonwealth, and these include large supplies of the most desirable varieties—spruces, Douglas fir, western hemlock, western red cedar, and white, red and other pines. In addition, the Eastern Provinces furnish hardwoods, such as birches, maples and elms, which are particularly useful for special purposes.

The total stand of timber of merchantable size is estimated to be 311,201,000,000 cu. ft. of which 191,347,000,000 cu. ft. is accessible. Expressed in commercial terms, the accessible timber is made up of 250,250,000,000 bd. ft. of logs in trees large enough to produce sawlogs and 1,684,710,000 cords of smaller material suitable for pulpwood, fuelwood, posts, mining timbers, etc.

The entrance of Newfoundland into Confederation on Mar. 31, 1949, resulted in an appreciable increase in Canada's forested area. It is estimated that about 17,000 sq. miles of the Island of Newfoundland is covered with forest, but no estimate is as yet available of the forest resources of Labrador.

If the forests are not to be impaired, the volumes of wood removed each year to serve useful purposes and the volumes burned or destroyed by pests must be replaced by annual growth. The average annual rate of depletion during the ten years 1937-46, was 3,303,139,000 cu. ft. of which 76 p.c. was utilized, 9 p.c. was destroyed by forest fires and 15 p.c. by insects and disease. Of 2,510,556,000 cu. ft. utilized, 38 p.c. took the form of logs and bolts, 29 p.c. was pulpwood, 29 p.c. fuelwood and the remaining 4 p.c. miscellaneous products. Approximately 7 p.c. of the utilization was exported in unmanufactured form.

The extraordinary demand for forest products which prevailed during the War and post-war years, continued during 1949. Requirements for housing and other forms of construction at home, together with exports, provided a stimulus for high production. However, a decrease in exports of lumber to the United Kingdom resulted in lower production. Pulp and paper production continued to increase and exports of paper reached a new peak in 1949. The increase in the production of paper resulted in a decrease in pulp exports.



A British Columbia spruce.

### *Forest Administration*

The forest resources of Canada as a whole are owned and administered by the provinces. The Federal Government, however, is responsible for the administration of those of the National Parks, Forest Experiment Stations, and Yukon and the Northwest Territories.

The general policy of both the Federal Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system the State retains the ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage; ground-rents and fire-protection taxes are collected annually. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis.

Forest research activities are assuming great importance. The Dominion Forest Service of the Department of Mines and Resources operates five forest experiment stations with a total area of 227 sq. miles, where investigations of the underlying principles governing the growth of forests and improvement in the rate of increment are made and practical methods of management tested. Specialized work in silvicultural research and problems connected with forest utilization are also carried on, while the Department of Agriculture conducts research work in the fields of forest pathology and forest entomology.



Provincial Governments and industry are also doing much to improve and strengthen administrative and protective services. Since the end of the War there has been increased interest and activity of Provincial Governments in forest inventory surveys, particularly on the part of Ontario and British Columbia as a result of recommendations made by Royal Commissions. The work is being greatly facilitated by the use of air survey methods.

### *Forest Utilization*

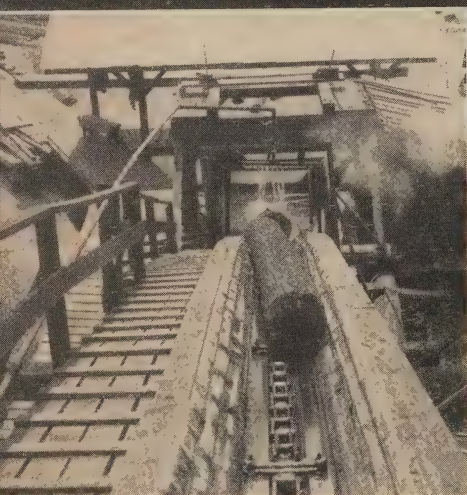
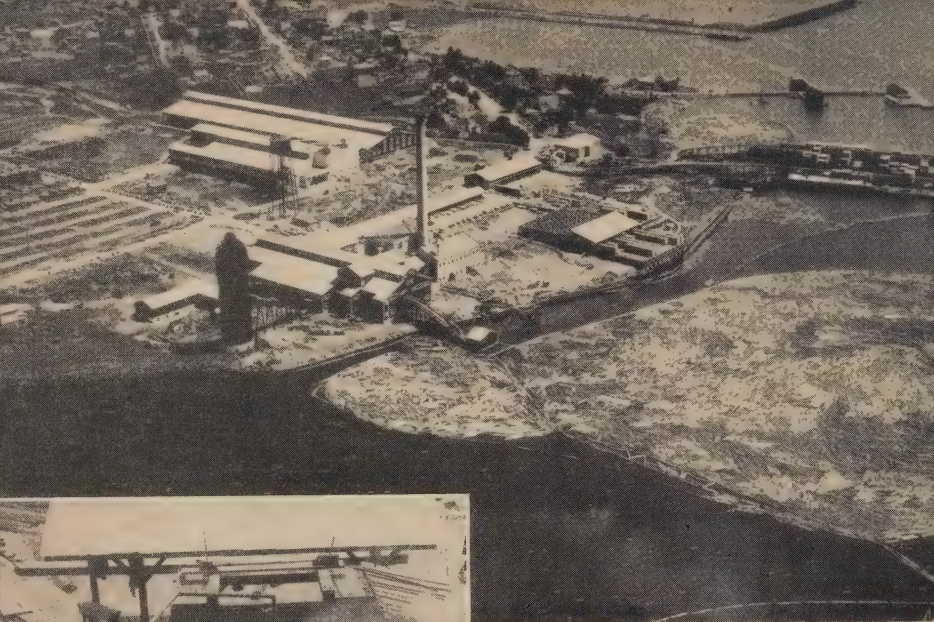
**Operations in the Woods.**—The principal products of the forest consist of logs and bolts which constitute the raw material for sawmills, veneer mills, wood distillation and other plants, and of pulpwood which goes to the pulp-mills. Some logs and bolts are exported in the unmanufactured state, but most pulpwood is processed in barking mills before it is shipped to foreign countries. Other products, such as fuelwood, poles and piling, pitprops, hewn railway ties, and fence posts and rails, are finished in the woods ready for use or export.

It has been estimated that operations in the woods in Canada in 1947 gave employment during the logging season amounting to 43,574,000 man-days, and distributed \$340,000,000 in wages and salaries. Except in British Columbia, where logging operations are fairly uniform throughout the year, work in the woods comes at a time when employment in other industries is at the lowest ebb. The steady effect of this industry on the employment situation and the fact that it provides a source of income to farmers during the winter season are not always fully appreciated.

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**A 'cherry picker' loading logs.**





A sawmill in Eastern Canada.



Logs travelling up the jack ladder into the mill.

### Value of Woods Operations, by Products, 1943-47

| Products                    | 1943               | 1944               | 1945               | 1946               | 1947               |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                             | \$                 | \$                 | \$                 | \$                 | \$                 |
| Logs and bolts.....         | 99,852,479         | 115,788,036        | 120,682,306        | 150,933,681        | 205,259,855        |
| Pulpwood.....               | 110,844,790        | 124,363,926        | 146,172,701        | 183,085,359        | 237,488,741        |
| Firewood.....               | 45,152,897         | 44,332,748         | 45,193,219         | 49,544,756         | 46,206,336         |
| Hewn railway ties....       | 1,138,663          | 1,289,165          | 1,339,920          | 1,131,951          | 1,177,806          |
| Poles.....                  | 2,032,681          | 5,217,255          | 5,663,793          | 5,302,324          | 8,404,809          |
| Round mining timber         | 3,418,857          | 3,509,015          | 6,437,074          | 12,149,767         | 10,082,458         |
| Fence posts.....            | 1,902,546          | 2,216,585          | 2,690,569          | 3,091,268          | 2,832,783          |
| Wood for distillation..     | 774,344            | 887,260            | 687,102            | 452,196            | 544,746            |
| Fence rails.....            | 464,365            | 513,135            | 367,741            | 605,503            | 628,804            |
| Miscellaneous products..... | 3,033,661          | 3,453,698          | 5,090,476          | 6,972,509          | 7,177,790          |
| <b>Totals.....</b>          | <b>268,615,283</b> | <b>301,570,823</b> | <b>334,324,901</b> | <b>413,269,314</b> | <b>519,804,128</b> |



**Sawn Lumber.**—The lumber industry comprises not only the output of mills sawing planks and boards and other long lumber but also the products of shingle, tie, spoolwood, lath, stave and heading mills, and of mills for the cutting-up and barking of pulpwood. Wood sawn into lumber consists chiefly of conifers; spruce, Douglas fir, hemlock, white pine, cedar and the other softwood account for about 95 p.c. and only 5 p.c. is cut from deciduous-leaved trees or hardwoods.

In 1947, the gross value of production for the industry as a whole showed an increase of 40 p.c. over the total for 1946. The 1947 figure includes the following commodities with their valuations: shingles (\$24,449,305); processed pulpwood (\$17,856,938); box shooks (\$10,733,323); sawn ties (\$10,397,208); spoolwood (\$2,902,854); staves (\$1,534,521); lath (\$1,239,824); heading (\$485,684); pickets (\$409,772); and other products and by-products (\$10,075,513).

Almost one-half the sawn lumber produced in 1947 was exported and the remainder was used for structural work in Canada or went into Canadian wood-using industries as the raw material in the manufacture of sash, doors and planing-mill products, furniture, boxes, cooperage, etc.

### *Production of Sawn Lumber and All Sawmill Products, 1947*

| Province or Territory     | Sawn Lumber Production |                    | Total Sawmill Products |
|---------------------------|------------------------|--------------------|------------------------|
|                           | '000 ft. b.m.          | \$                 | \$                     |
| Prince Edward Island..... | 13,893                 | 587,924            | 661,504                |
| Nova Scotia.....          | 387,996                | 18,014,263         | 19,654,834             |
| New Brunswick.....        | 354,767                | 17,951,051         | 20,608,236             |
| Quebec.....               | 1,227,055              | 63,258,288         | 73,898,677             |
| Ontario.....              | 733,129                | 41,526,059         | 51,170,386             |
| Manitoba.....             | 65,307                 | 2,809,324          | 2,938,224              |
| Saskatchewan.....         | 104,744                | 3,973,886          | 4,185,743              |
| Alberta.....              | 283,478                | 9,691,039          | 10,743,328             |
| British Columbia.....     | 2,707,052              | 164,199,747        | 218,235,191            |
| Yukon.....                | 480                    | 36,775             | 37,175                 |
| <b>Totals.....</b>        | <b>5,877,901</b>       | <b>322,048,356</b> | <b>402,133,298</b>     |

**Pulp and Paper.**—Extensive pulpwood resources and widely distributed water powers, together with the proximity of the United States markets, have been largely responsible for the remarkable development of the Canadian pulp and paper industry. It has grown steadily from a business of a few millions of dollars a year at the beginning of the century to become in the early 1920's Canada's leading industry, a position it has maintained ever since except during the years 1942-44. In 1948 the pulp and paper industry ranked highest in net value of production and salary and wage distribution, while the gross value of its products reached the unprecedented total of \$825,857,664. In these comparisons only the manufacturing stages of the industry are considered, no allowance being made for employment furnished, payrolls, or production of operations in the woods.

There are three classes of mills in this industry: mills making pulp only, combined pulp and paper mills, and mills making paper only. In 1948, the 91 mills making pulp, 29 of which made pulp only, produced 7,675,079 tons of pulp valued at \$485,966,164. About 72 p.c. in quantity was made in combined mills and used by them in papermaking and about 28 p.c. was made for sale in Canada and for export.



The volume of pulp and paper produced in 1948 was the highest ever recorded and new peaks were also reached for gross and net value of production, employment, salaries and wages paid, cost of materials used, cost of purchased fuel, and power equipment used. The gross value of production in 1948 was 17 p.c. over the previous record of 1947 and an increase of almost 239 p.c. over 1929. Figures from 1939 are:—

|           | Gross<br>Production | Net<br>Production |           | Gross<br>Production | Net<br>Production |
|-----------|---------------------|-------------------|-----------|---------------------|-------------------|
|           | \$                  | \$                |           | \$                  | \$                |
| 1939..... | 208,152,295         | 103,123,660       | 1944..... | 369,846,086         | 174,492,103       |
| 1940..... | 298,034,843         | 158,230,575       | 1945..... | 398,804,515         | 180,401,885       |
| 1941..... | 334,726,175         | 174,852,041       | 1946..... | 527,814,916         | 258,164,578       |
| 1942..... | 336,697,277         | 164,500,420       | 1947..... | 706,971,628         | 356,084,900       |
| 1943..... | 344,411,614         | 164,244,088       | 1948..... | 825,857,664         | 412,770,470       |

Production of pulp during the past ten years is given in the following tables.

### *Pulp Production, Mechanical and Chemical, 1939-48*

| Year      | Mechanical Pulp |             | Chemical Fibre |             | Total Production |                          |
|-----------|-----------------|-------------|----------------|-------------|------------------|--------------------------|
|           | Quantity        | Value       | Quantity       | Value       | Quantity         | Value                    |
|           | tons            | \$          | tons           | \$          | tons             | \$                       |
| 1939..... | 2,796,093       | 43,530,367  | 1,370,208      | 53,601,450  | 4,166,301        | 97,131,817               |
| 1940..... | 3,368,209       | 56,017,547  | 1,922,553      | 92,987,720  | 5,290,762        | 149,005,267              |
| 1941..... | 3,550,285       | 61,749,788  | 2,170,562      | 113,689,763 | 5,720,847        | 175,439,551              |
| 1942..... | 3,308,118       | 65,208,919  | 2,298,343      | 126,936,143 | 5,606,461        | 192,145,062              |
| 1943..... | 3,033,751       | 63,721,703  | 2,239,079      | 130,797,449 | 5,272,830        | 194,519,152              |
| 1944..... | 3,113,142       | 72,097,231  | 2,157,995      | 138,944,181 | 5,271,137        | 211,041,412              |
| 1945..... | 3,380,873       | 86,723,425  | 2,219,941      | 145,149,697 | 5,600,814        | 231,873,122              |
| 1946..... | 4,122,046       | 113,599,526 | 2,493,364      | 174,024,701 | 6,615,410        | 287,624,227              |
| 1947..... | 4,408,698       | 150,245,618 | 2,838,205      | 253,399,159 | 7,253,671        | 403,853,235 <sup>1</sup> |
| 1948..... | 4,560,237       | 172,390,591 | 3,081,175      | 312,627,506 | 7,675,079        | 485,966,164 <sup>1</sup> |

<sup>1</sup> Includes unspecified pulp.

### *Pulp Production, by Chief Producing Provinces, 1939-48*

| Year      | Quebec    |             | Ontario   |             | British Columbia |            |
|-----------|-----------|-------------|-----------|-------------|------------------|------------|
|           | Quantity  | Value       | Quantity  | Value       | Quantity         | Value      |
|           | tons      | \$          | tons      | \$          | tons             | \$         |
| 1939..... | 2,119,183 | 49,026,966  | 1,158,576 | 27,631,051  | 321,132          | 6,197,175  |
| 1940..... | 2,794,384 | 76,996,100  | 1,369,389 | 38,235,733  | 445,564          | 12,109,948 |
| 1941..... | 2,971,386 | 89,103,399  | 1,507,324 | 46,908,967  | 508,375          | 14,875,937 |
| 1942..... | 2,896,440 | 97,632,408  | 1,518,967 | 51,936,704  | 481,294          | 16,243,737 |
| 1943..... | 2,617,403 | 94,054,176  | 1,490,966 | 54,818,046  | 450,009          | 17,543,397 |
| 1944..... | 2,767,081 | 105,042,991 | 1,316,365 | 54,934,993  | 489,690          | 19,739,476 |
| 1945..... | 2,887,176 | 114,197,036 | 1,468,682 | 62,596,260  | 520,571          | 21,998,381 |
| 1946..... | 3,460,853 | 140,930,891 | 1,837,975 | 84,049,038  | 520,779          | 24,216,820 |
| 1947..... | 3,751,579 | 194,805,327 | 2,100,237 | 122,382,058 | 593,165          | 37,720,328 |
| 1948..... | 3,902,072 | 227,425,545 | 2,226,124 | 153,870,832 | 688,209          | 49,220,655 |

The 62 combined mills and the 26 mills making paper only produced 6,063,646 tons of paper and paperboard in 1948, having a total value of \$582,346,842. Newsprint made up 76.5 p.c. of the total production; paperboard 13.5 p.c.; book and writing paper 3.8 p.c.; wrapping paper 3.4 p.c.; and tissues and miscellaneous papers the remainder.

## Newsprint and Total Paper Production, 1939-48

| Year      | Newsprint Paper |             | Total Paper |             |
|-----------|-----------------|-------------|-------------|-------------|
|           | Quantity        | Value       | Quantity    | Value       |
|           | tons            | \$          | tons        | \$          |
| 1939..... | 2,926,597       | 120,858,583 | 3,600,502   | 170,776,062 |
| 1940..... | 3,503,801       | 158,447,311 | 4,319,414   | 225,836,809 |
| 1941..... | 3,519,733       | 158,925,310 | 4,524,776   | 241,450,292 |
| 1942..... | 3,257,180       | 147,074,109 | 4,231,767   | 230,269,512 |
| 1943..... | 3,046,442       | 152,962,868 | 3,966,344   | 234,036,152 |
| 1944..... | 3,039,783       | 165,655,165 | 4,044,376   | 255,545,841 |
| 1945..... | 3,324,033       | 189,023,736 | 4,359,576   | 282,837,614 |
| 1946..... | 4,162,158       | 280,809,610 | 5,347,118   | 396,956,390 |
| 1947..... | 4,474,264       | 355,540,669 | 5,775,082   | 507,101,277 |
| 1948..... | 4,640,336       | 402,099,718 | 6,063,646   | 582,346,842 |

Newsprint production during the first eight months of 1949 showed an increase of 187,000 tons or nearly 6 p.c. over the same period in 1948. The output of Newfoundland mills is included in this comparison.

Exports of newsprint in 1948 amounted to 4,328,084 tons valued at \$383,122,743 and again ranked first among the exports of Canada.

*The pulp and paper mill at Corner Brook, Newfoundland, is one of the largest in the world.*







Power shovel, typical of the massive equipment used in open-pit mining. Where ore occurs in large bodies close to the surface, it is broken down by drilling and blasting, scooped up by large power shovels and carried away to the mill in trucks.



## ★ Mines and Minerals

Substantial improvement in the volume of production of the major metals and non-metals, and higher market prices for most of them, brought the value of Canada's mineral production in 1948 to a record total of \$820,000,000. In several of the war years the output had cleared the \$500,000,000 mark, and in 1947 it had jumped to \$645,000,000, but the total for 1948 was far beyond any previous figure.

Only about one-half of this gain in value in 1948 was due to expansion in physical output. From the data that are available at present, it appears that the tonnage of ore raised by Canadian metal mines in 1948 was from 10 to 12 p.c. greater than in the previous year. Output of gold bullion was up nearly 14 p.c., zinc increased 12 p.c., copper 6 p.c., lead 4 p.c., and nickel 9 p.c. Among the non-metallics there were even greater gains. The tonnage of coal was 16 p.c. above the 1947 figure, asbestos was up 7 p.c., gypsum 29 p.c., cement 18 p.c. and crude petroleum 57 p.c.

The other chief factor which helped boost the output value was the further advance in world prices for the principal base metals, which constitute a very large part of Canada's mineral output. Quotations for electrolytic copper at New York rose to 23·2 cents before the year-end, and the average for the year was approximately two cents per pound higher than in 1947. Lead reached a high of 21·5 cents, and over the year its quotations averaged  $4\frac{1}{2}$  cents per pound more than in the previous year. Electrolytic zinc rose to 17·5 cents per pound for a gain of  $2\frac{3}{4}$  cents on the yearly average, and quotations for electrolytic nickel rose to 40 cents per pound or 5 cents more than the quotations which had prevailed for some months. Most other metals and non-metals were also quoted at higher levels than in 1947. These price advances accounted for about half of the total gain in output value in 1948 as compared with 1947.

**Copper.**—About one-half of Canada's copper comes from the nickel-copper mines of the Sudbury district. At Copper Cliff the International Nickel Company of Canada, Limited, produces converter copper which is further treated in the company's refinery at that point, and at Falconbridge the Falconbridge Nickel Mines, Limited, produces nickel-copper matte which is exported to Norway for refining. Output of copper in this area in 1948 was 120,187 tons, this including blister copper and the recoverable copper contained in matte or other products. In 1947 the corresponding output figure was 113,930 tons.

Mines in northern Quebec now account for 20 p.c. of Canada's copper production. These ores are treated at the Noranda smelter to produce copper anodes which are shipped to the Canadian Copper Refiners, Limited, at Montreal East for refining. Production of copper by operators in this district amounted to 48,813 tons in 1948 compared with 42,561 tons in 1947. Noranda, Normetal, Waite-Amulet and Amulet Dufault were the principal producing mines. The East Sullivan mill came into production at the year-end and construction work at the Quemont was well advanced.

The Flin Flon-Sherritt Gordon area in northern Manitoba, and extending over the border into Saskatchewan, produced 50,034 tons of copper in 1948 compared with 48,467 tons in the previous year. Ores from the Flin Flon mine of Hudson Bay Mining and Smelting Company, Limited, and from the Sherritt-Gordon Mines, Limited, at Sherritton are treated at the Flin Flon smelter, and the blister copper which is recovered is shipped to Montreal East for refining. The Cuprus Mines commenced shipments to the Flin Flon smelter in October.

Mines in British Columbia, which account annually for about 9 p.c. of Canada's copper, produced 21,855 tons in 1948 as against 21,501 tons in 1947. The Britannia Mining and Smelting Company, Limited, and the Granby Consolidated Mining, Smelting and Power, Limited, were the major producers, with smaller contributions being made by Hedley Mascot, Kelowna and Vananda. Concentrates from these mines were exported to the United States. The Consolidated Mining and Smelting Company of Canada, Limited, exported some copper-bearing matte to the United States in 1948.

While the total tonnage of copper production in 1948, at 240,732 tons, was greater than in 1947, it was lower than in any of the years from 1937 to 1944 inclusive. The record output was in 1940 at 327,796 tons.



*The prospector with his Geiger counter has become a familiar sight in the Canadian north as the search for radio-active minerals progresses. Several important uranium discoveries have been made recently by this method.*

Output of refined copper amounted to 219,000 tons in 1948 compared with 203,000 tons in 1947. Consumption of the refined metal in Canada totalled 107,000 tons, and exports amounted to 116,169 tons. Shipments to the United Kingdom aggregated 63,494 tons for the year, and to the United States 18,086 tons.

**Nickel.**—Nickel production in 1948 totalled 131,740 tons, this being made up of refined nickel, the recoverable nickel in matte and sintered oxide exported, and the nickel in salts produced at smelters or refineries. This tonnage was 8 p.c. greater than the corresponding figure for 1947, but was considerably below the record of 144,009 tons established in 1943.

Practically all of this nickel—about 90 p.c. of the total world output, exclusive of U.S.S.R.—comes from the Sudbury nickel-copper ores. The International Nickel Company of Canada, Limited, conducts smelting operations at Copper Cliff and Coniston, Ontario, while the Falconbridge Nickel Mines, Limited, operates a smelter at its mine site a few miles east of the town of Sudbury. Matte from the former is refined at Port Colborne, Ontario, or is exported to the company's associated works in the United States and Great Britain. All of the Falconbridge matte is exported to the company's refinery in Norway. A relatively small amount of nickel oxide is recovered by the Deloro Smelting and Refining Company, Limited, Deloro, Ontario, from the treatment of silver-cobalt-nickel-arsenic ores from the Cobalt district in northern Ontario.

The consumption of refined nickel by Canadian foundries amounts to about 2,000 tons annually.

**Lead.**—Output of lead in 1948 at 165,271 tons was up only 4 p.c. from the previous year. Here again the scale of mine operations was considerably below the wartime level, but advances in market prices for the metal raised the value of output to an all-time peak of \$60,400,000.

About 96 p.c. of the Canadian output was from the Province of British Columbia, and most of this in turn came from the great Sullivan mine of the Consolidated Mining and Smelting Company of Canada, Limited, at Kimberley. Smaller contributors included the Base Metals Mining Corporation, Highland Bell, Ainsmore Consolidated, Silbak Premier and Sheep Creek Zincton. Production in British Columbia in 1948 totalled 160,019 tons compared with 156,867 tons in 1947.

Recoveries by Quebec's lead producers, the New Calumet Mines, Limited, and the Golden Manitou Mines, Limited, were greater by almost 10 p.c. in 1948 at 4,761 tons. In the Yukon, the output of 2,299 tons, mostly from United Keno Hill, was nearly three times that of the previous year.

Output of new refined lead amounted to 160,000 tons in 1948, a slight decrease from the preceding year. All of this refined metal was made at the Trail smelter of the Consolidated Mining and Smelting Company of Canada, Limited. The concentrates from Quebec's mines were exported to the United States and Belgium.

Consumption of refined lead in Canada continued at a high level. Users reported 1948 purchases at 62,000 tons, of which about 20,000 tons were for use in storage batteries, 15,000 tons for babbitts, solders, etc., 12,000 tons for covering wires and cables, 10,000 tons for pigments, and 5,000 tons for miscellaneous purposes.

Exports of refined lead during the year totalled 103,762 tons.



**Zinc.**—Mines in British Columbia accounted for 58 p.c. of Canada's zinc production in 1948; the Flin Flon-Sherritt Gordon district in Manitoba and Saskatchewan contributed 22 p.c. and northern Quebec 20 p.c. The total output of 234,164 tons compares with 207,863 tons in 1947 and with the record of 305,377 tons in 1943.

Production in British Columbia was up 5 p.c. in 1948 to 135,155 tons. Most of this came from the Sullivan mine, but there were relatively small shipments from Ainsmore Consolidated, Base Metals Corporation, Silbak Premier, Sheep Creek, Highland Bell, Britannia, and Western Exploration. In central Canada the Flin Flon and Sherritt Gordon mines produced 51,129 tons, or 10 p.c. more than in 1947, and in Quebec the mine shipments totalled 47,879 tons compared with 34,732 tons in the previous year. The Normetal, Waite-Amulet, Golden Manitou and New Calumet contributed to these latter totals, and all the concentrates from these properties were exported to the United States and Belgium.

Output of refined zinc amounted to 189,000 tons, of which about one-quarter or 46,000 tons were for Canadian users and the remainder for export, chiefly to the United Kingdom and the United States.

**Gold and Silver.**—Gold production increased in practically every mining area in 1948 and the over-all total of 3,529,608 ounces was 14 p.c. above that of the previous year. The Gold Mines Assistance Act was of definite help to a great many marginal mines in their battle against inflated costs, and the success of the industry's experiment in bringing displaced persons from Europe was of great assistance in easing the critical labour shortage. However, the industry is still operating far below its potential. The 1948 output was exceeded in each of the years from 1936 to 1943, inclusive, and it was 35 p.c. below the record of 5,345,000 ounces attained in 1941.



*End product of the gold-mining industry—the gold brick.*



*Modern in every aspect is the main head-frame and mill at the Hollinger Consolidated Gold Mines, Timmins, Ont.*

In Ontario, which accounts for almost 60 p.c. of the Canadian total, the output was 2,095,377 ounces or 6 p.c. more than in 1947. In Quebec the gain was 28 p.c. to 770,625 ounces, in Manitoba 50 p.c. to 106,176 ounces, in British Columbia 24 p.c. to 306,998 ounces, and in the Northwest Territories 58 p.c. to 101,625 ounces.

Recoveries of gold from base metal mines in 1948 amounted to 413,661 ounces, an increase of more than 70 p.c. over the corresponding figure for 1947. Bullion from lode and placer mines increased only about 10 p.c. to 3,115,947 ounces.

Silver, a by-product of most gold and base metal mines, increased 25 p.c. in quantity in 1948 to 16,100,000 ounces, including silver bullion and silver contained in concentrates exported. Production of fine silver was about 12,000,000 ounces in 1948 and the consumption by Canadian users, other than for coinage, was 4,500,000 ounces.

**Mineral Fuels.**—In 1948 the value of coal production was greater than that of any other mineral except gold and copper. It was slightly below copper in this regard and far above nickel, lead, zinc or asbestos. The 1948 output, amounting to 18,449,689 tons worth \$107,000,000, was the highest on record in point of value and second in tonnage; 44 p.c. of the tonnage





*Strip-mining coal at Taber, Alta.*

came from Alberta mines, 35 p.c. from Nova Scotia, 10 p.c. from British Columbia, 8 p.c. from Saskatchewan and 3 p.c. from New Brunswick. There was also a small tonnage from the Yukon. About 1,274,000 tons of coal were exported in 1948 and imports totalled 31,000,000 tons.

Spectacular developments in the new Leduc, Woodbend and Redwater fields in Alberta resulted in a 57 p.c. advance in Canada's crude oil output in 1948 as compared with 1947. The production of 12,286,660 barrels was the highest ever recorded. Alberta's share of this total was 89 p.c. while Saskatchewan accounted for almost 7 p.c., the Northwest Territories for 3 p.c. and Ontario for 1.4 p.c.

Output of natural gas increased 8 p.c. to 59,000,000 cubic feet valued at \$15,600,000. Alberta wells supplied 83 p.c. of the total quantity.

**Other Non-Metallics.**—New records were established for all structural materials. Cement production was up 19 p.c. from 1947 to 14,100,000 barrels, shipments of sand and gravel increased 13 p.c. to 69,000,000 tons, stone 5 p.c. to 11,700,000 tons, lime nearly 8 p.c. to 1,000,000 tons, and clay products 20 p.c. to \$17,600,000.

Asbestos production was far ahead of any previous year at 716,769 tons worth \$42,200,000, up 7 p.c. in quantity and 25 p.c. in value from 1947.



Gypsum also reached a new record at 3,216,809 tons valued at \$5,600,000, but barite dropped off to 95,747 tons at \$1,100,000.

Salt production at 741,261 tons worth \$4,800,000, was up 2 p.c. in quantity from 1947. About 56 p.c. of this tonnage was for use in the manufacture of chemicals. The new plant of the Alberta Salt Company, Limited, commenced operations in June.

Output of natural sodium sulphate totalled 153,698 tons at \$2,100,000 in 1948, representing a decline of 8 p.c. in quantity and an increase of 17 p.c. in value compared with 1947. A new plant at Lindbergh, Saskatchewan, has been in operation since June, 1948.

### Mineral Production, by Kinds, 1947 and 1948

| Item  | 1947        |             | 1948        |             |
|---|-------------|-------------|-------------|-------------|
|   | Quantity    | Value<br>\$ | Quantity    | Value<br>\$ |
| <b>METALLICS</b>                                  |             |             |             |             |
| Bismuth..... lb.                                  | 284,372     | 560,213     | 240,242     | 480,484     |
| Cadmium..... "                                    | 718,534     | 1,235,879   | 766,090     | 1,398,114   |
| Calcium..... "                                    | 602,665     | 642,607     | 895,203     | 1,723,266   |
| Cobalt..... "                                     | 572,673     | 875,644     | 1,544,852   | 2,029,178   |
| Copper..... "                                     | 451,723,093 | 91,541,888  | 481,463,966 | 107,159,756 |
| Gold..... fine oz.                                | 3,070,221   | 107,457,735 | 3,529,608   | 123,536,280 |
| Iron ore..... ton                                 | 1,919,366   | 9,313,201   | 1,337,244   | 7,487,611   |
| Lead..... lb.                                     | 323,336,687 | 44,200,124  | 334,501,917 | 60,344,146  |
| Nickel..... "                                     | 237,251,496 | 70,650,764  | 263,479,163 | 86,904,235  |
| Palladium, rhodium,<br>iridium, etc..... fine oz. | 110,332     | 4,387,740   | 148,343     | 6,295,132   |
| Platinum..... "                                   | 94,570      | 5,582,467   | 121,404     | 10,622,850  |
| Selenium..... lb.                                 | 501,090     | 937,038     | 390,894     | 781,788     |
| Silver..... fine oz.                              | 12,504,018  | 9,002,893   | 16,109,982  | 12,082,487  |
| Tin..... lb.                                      | 714,198     | 517,794     | 691,332     | 688,567     |
| Zinc..... "                                       | 415,725,826 | 46,686,010  | 468,327,036 | 65,237,956  |
| Other..... "                                      | ...         | 1,526,881   | ...         | 1,462,114   |
| TOTALS, METALLICS.....                            | ...         | 395,118,878 | ...         | 488,233,964 |
| <b>FUELS</b>                                      |             |             |             |             |
| Coal..... ton                                     | 15,868,866  | 77,475,017  | 18,449,689  | 106,684,008 |
| Natural gas..... M cu. ft.                        | 52,656,567  | 13,429,558  | 58,603,269  | 15,632,507  |
| Peat..... ton                                     | 95          | 950         | 85          | 850         |
| Petroleum..... bbl.                               | 7,692,492   | 19,575,682  | 12,286,660  | 37,418,895  |
| TOTALS, FUELS.....                                | ...         | 110,481,207 | ...         | 159,736,260 |
| <b>OTHER NON-METALLICS</b>                        |             |             |             |             |
| Asbestos..... ton                                 | 661,821     | 33,005,748  | 716,769     | 42,231,475  |
| Barite..... "                                     | 128,675     | 1,380,753   | 95,747      | 1,073,380   |
| Feldspar..... "                                   | 36,104      | 381,360     | 54,851      | 564,437     |
| Fluorspar..... "                                  | 7,186       | 209,886     | 11,340      | 344,834     |
| Graphite..... "                                   | 2,398       | 207,364     | 2,539       | 239,931     |
| Gypsum..... "                                     | 2,496,984   | 4,734,853   | 3,216,809   | 5,548,245   |
| Magnesitic dolomite and<br>brucite..... "         | ...         | 1,238,948   | ...         | 1,724,489   |
| Mica..... lb.                                     | 8,318,755   | 200,903     | 7,902,303   | 219,948     |
| Nepheline syenite..... ton                        | 66,995      | 341,635     | 74,386      | 506,462     |
| Peat moss..... "                                  | 80,018      | 2,279,821   | 89,800      | 2,767,878   |
| Quartz..... "                                     | 1,836,428   | 1,796,612   | 2,017,262   | 2,082,573   |
| Salt..... "                                       | 728,545     | 4,436,930   | 741,261     | 4,836,028   |
| Sodium sulphate..... "                            | 163,290     | 1,793,043   | 153,698     | 2,136,276   |
| Sulphur..... "                                    | 221,781     | 1,822,867   | 229,463     | 1,836,358   |
| Other..... "                                      | ...         | 862,382     | ...         | 1,039,081   |
| TOTALS, OTHER NON-METALLICS                       | ...         | 54,693,105  | ...         | 67,151,395  |

# Mineral Production, by Kinds, 1947 and 1948—concluded

| Item  | 1947       |                    | 1948       |                    |
|---|------------|--------------------|------------|--------------------|
|   | Quantity   | Value              | Quantity   | Value              |
|   |            | \$                 |            | \$                 |
| <b>CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS</b> |            |                    |            |                    |
| Clay products (brick, tile, etc.).....              |            | 14,486,189         |            | 17,629,048         |
| Cement..... bbl.                                    | 11,936,245 | 21,968,909         | 14,127,123 | 28,264,987         |
| Lime..... ton                                       | 977,413    | 8,542,507          | 1,053,584  | 10,655,062         |
| Sand and gravel..... "                              | 56,789,569 | 23,114,431         | 68,670,863 | 30,629,596         |
| Stone..... "  | 10,889,388 | 16,464,749         | 11,696,643 | 17,948,553         |
| TOTALS, CLAY PRODUCTS, ETC.                         | ...        | 84,576,785         | ...        | 105,127,246        |
| <b>Grand Totals.....</b>                            | ...        | <b>644,869,975</b> | ...        | <b>820,248,865</b> |

## Mineral Production, by Provinces, 1946-48

| Province or Territory              | 1946               |               | 1947               |               | 1948               |               |
|------------------------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|
|                                    | Value              | P.C. of Total | Value              | P.C. of Total | Value              | P.C. of Total |
|                                    | \$                 |               | \$                 |               | \$                 |               |
| Nova Scotia.....                   | 35,350,271         | 7.0           | 34,255,560         | 5.3           | 56,400,245         | 6.9           |
| New Brunswick.....                 | 4,813,166          | 0.9           | 5,812,943          | 0.9           | 7,003,285          | 0.9           |
| Quebec.....                        | 92,785,148         | 18.5          | 115,151,635        | 17.9          | 152,038,867        | 18.5          |
| Ontario.....                       | 191,544,429        | 38.1          | 249,797,671        | 38.7          | 294,239,673        | 35.8          |
| Manitoba.....                      | 16,403,549         | 3.3           | 18,236,763         | 2.8           | 26,081,349         | 3.2           |
| Saskatchewan.....                  | 24,480,900         | 4.9           | 32,594,016         | 5.1           | 34,517,208         | 4.2           |
| Alberta.....                       | 60,082,513         | 12.0          | 67,432,270         | 10.5          | 93,211,229         | 11.4          |
| British Columbia.....              | 74,622,846         | 14.8          | 116,772,621        | 18.1          | 148,223,614        | 18.1          |
| Yukon.....                         | 1,693,904          | 0.3           | 2,095,508          | 0.3           | 4,265,910          | 0.5           |
| Northwest Territories <sup>1</sup> | 1,039,525          | 0.2           | 2,720,988          | 0.4           | 4,267,485          | 0.5           |
| <b>Totals<sup>1</sup>.....</b>     | <b>502,816,251</b> | <b>100.0</b>  | <b>644,869,975</b> | <b>100.0</b>  | <b>820,248,865</b> | <b>100.0</b>  |

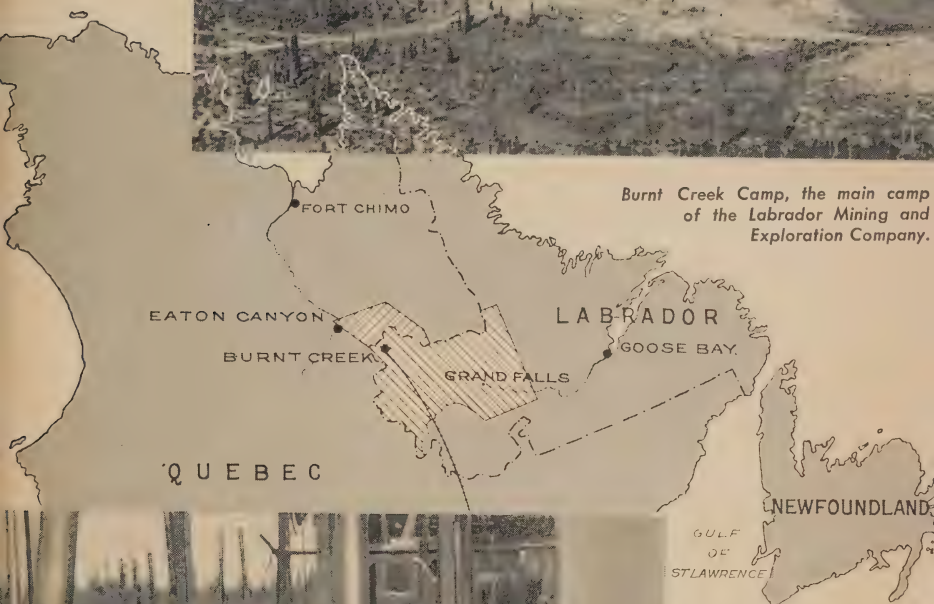
<sup>1</sup> Excluding pitchblende products.

**Developments in 1949.**—During 1949, which saw the Prairie Provinces attain a position of self-sufficiency in oil as a result of the increased tempo of exploration and development in Alberta, Canada's oil production was almost double that of 1948. Preliminary figures placed production at 22,220,000 barrels (of which 20,935,000 barrels were produced in Alberta) valued at \$62,233,000, compared to the 1948 production total of 12,287,000 barrels valued at \$37,419,000.

There were significant developments in the Quebec-Labrador iron ore and Quebec ilmenite areas. In the iron ore region, the total of proved ore was increased to 355,000,000 tons by drilling during the 1949 season. Arrangements were made to finance the project to the point of production, and construction of a railway southward to the port of Seven Islands on the Gulf of St. Lawrence was scheduled to commence in the spring of 1950.

At Hayve St. Pierre on the Gulf of St. Lawrence another railway was started to connect that port to the Allard Lake area where what is believed to be the largest single deposit of ilmenite (the ore of titanium) in the world is being prepared for production. This deposit contains 150,000,000 long tons or more of ilmenite. A smelting plant designed initially to treat 1,500 tons of ilmenite a day was under construction at Sorel, Que.

# LABRADOR IRON



Burnt Creek Camp, the main camp of the Labrador Mining and Exploration Company.



The extensive and rich iron deposits in the isolated Quebec-Labrador area of Ungava, now in the early stages of development, hold the possibility of changing the steel and iron economy of North America.



Drillers taking a churn-drill sample.





# ★Water Powers

The potential power available from the falls and rapids on the numerous rivers, large and small, which are distributed across Canada, constitutes one of the country's great natural resources. In most provinces precipitation and topography are favourable to power development.

Low-cost hydro-electric energy is fundamental to the industrial activities of Canada, and is the basis upon which several essential industries have been built. These include the pulp, paper and wood-products industries which absorb enormous amounts of hydraulic and hydro-electric power; mining, milling and refining of base and precious metals together with their fabrication; electro-chemical industries; and also lighter manufacturing such as food-processing and textile production. The wide distribution of hydro-electric power has contributed largely to the high standard of living in Canada by providing economical domestic service to homes and farms, a service that is being rapidly extended.

As an installation of hydraulic capacity averaging 30 p.c. in excess of available power, indicated by the ordinary six-month flow, has been found to be sound commercial practice, it is estimated that Canada's presently recorded water-power resources represent a feasible installation of more than 55,000,000 h.p. Thus the present total of installed capacity is only 21 p.c. of the possible turbine installation.

During 1949 the demand for hydro-electric energy continued to expand throughout Canada as a result of the high level of industrial activity and increased commercial, rural and domestic consumption. The output of primary power by central stations exceeded that for 1948, the previous high year, by nearly 15 p.c. and was well in excess of double the average amount for the pre-war period 1935-39. This high demand, in conjunction with deficient run-off on some rivers, caused a shortage of power in certain areas, particularly in southern Ontario where power restrictions went into effect in September. The completion of the larger plants now under construction or planned will be necessary before any reserve capacity becomes available.

## *Available and Developed Water Power, by Provinces, Dec. 31, 1949*

| Province or Territory                | Available 24-Hour Power<br>at 80 p.c. Efficiency |                                     | Turbine<br>Installation |
|--------------------------------------|--|-------------------------------------|-------------------------|
|                                      | At<br>Ordinary<br>Minimum<br>Flow                | At<br>Ordinary<br>Six-Month<br>Flow |                         |
|                                      | h.p.   | h.p.                                | h.p.                    |
| Newfoundland.....                    | 1,135,000  | 2,585,000                           | 255,150                 |
| Prince Edward Island.....            | 3,000  | 5,300                               | 2,617                   |
| Nova Scotia.....                     | 20,800   | 128,300                             | 145,384                 |
| New Brunswick.....                   | 68,600   | 169,100                             | 133,347                 |
| Quebec.....                          | 8,459,000  | 13,064,000                          | 6,135,737               |
| Ontario.....                         | 5,407,200  | 7,261,400                           | 2,896,540               |
| Manitoba.....                        | 3,309,000  | 5,344,500                           | 547,700                 |
| Saskatchewan.....                    | 542,000  | 1,082,000                           | 111,835                 |
| Alberta.....                         | 507,800  | 1,258,000                           | 106,560                 |
| British Columbia.....                | 7,023,000  | 10,998,000                          | 1,234,269               |
| Yukon and Northwest Territories..... | 382,500  | 813,500                             | 28,069                  |
| <b>Canada.....</b>                   | <b>26,857,900</b>                                | <b>42,709,100</b>                   | <b>11,597,208</b>       |

**Provincial Distribution of Water Power.**—The water powers of the *Maritime Provinces*, despite the lack of large rivers, constitute a valuable source of electric power, a considerable proportion of which has been developed. Although only tentative estimates of the water-power resources of *Newfoundland* are available, the new Province appreciably increases the total for Canada. On the Island, relatively heavy precipitation provides a high rate of run-off on the short rivers and, in Labrador, the Hamilton River is outstanding as a potential source of power.

*Quebec* ranks highest in available water-power resources, having over 30 p.c. of the total recorded for all Canada; it has made remarkable progress as its present installation of 6,135,737 h.p. represents nearly 53 p.c. of the total for Canada. The Saguenay River Shipshaw development of 1,200,000 h.p. and the St. Lawrence River Beauharnois Plant of 742,000 h.p. are the two largest in Canada. The Province of *Ontario* has extensive water-power resources and in total hydro-power developed is exceeded only by Quebec. The Hydro-Electric Power Commission of Ontario operates 57 generating stations with installations totalling nearly 2,000,000 h.p., the largest being the Niagara River Queenston Plant of 560,000 h.p.; a large amount of power is also purchased.

*Manitoba* has more water-power resources and has developed them to a greater extent than either of the other Prairie Provinces. Practically all of the developed sites centre on the Winnipeg River. These supply not only Winnipeg and its suburban areas but, through the transmission network of the Manitoba Power Commission, power is distributed to more than 200 municipalities and a large part of the rural areas of southern Manitoba where farm electrification is a primary objective. In *Saskatchewan* water-power development is confined to the northern mining districts. The southern portions of Saskatchewan and Alberta, which are lacking in water-power resources, have large fuel reserves. In *Alberta*, present developments are located in the Bow River Basin and serve Calgary and numerous other municipalities between the International Boundary and the area north of Edmonton. However, the larger part of the power resources of the Province is located north of, and remote from, the centres of population.

*British Columbia*, traversed by three distinct mountain ranges and with favourable climate and rainfall, ranks second among the provinces in available power resources and its hydraulic development is exceeded only by Quebec and Ontario. Present developments are practically all located in the southern part of the Province in the Fraser and Columbia River Basins, although resources are well distributed. In *Yukon* and the *Northwest Territories*, there are numerous rivers offering opportunities for power development, although relatively light precipitation and a prolonged winter season limit favourable sites to locations where adequate storage is available. Successful developments have been made for local mining purposes.

**Hydro-Electric Construction during 1949.**—The continued growth in demand for hydro-electric energy not only readily absorbed the additional power produced in 1949 but created a shortage in a number of districts during the peak-load autumn and winter period. This condition resulted in an accelerated program of hydro-electric development and the plants under advanced construction will have a capacity of about 1,500,000 h.p.; definite planning





*A second source of electric power to that of the Yellowknife River became available to the mines and settlements of the remote Yellowknife district of the Northwest Territories with the opening of the Snare River project in October, 1948. The normal output of this Federal Government plant is 8,350 h.p. The Snare River, when fully developed, has a projected capacity of 30,000 h.p.*

and preliminary construction covers additional sites and plant enlargements totalling about 650,000 h.p. and other long-range plans, including the St. Lawrence River, envisage the development of a further 3,000,000 h.p.

*Ontario.*—Although during 1949 the Hydro-Electric Power Commission of Ontario did not bring any new plants into operation, the Commission had several large developments under active construction. Good progress was made on its major project at Des Joachims on the Ottawa River above Pembroke; the main and the spillway dams were completed and the installation of five units of 60,000 h.p. each, for operation in the summer of 1950, was well up to schedule; the plant will have an ultimate capacity of 480,000 h.p. Active construction, with the main dam partially completed, was also under way at the Chenaux site on the Ottawa River about 10 miles north of Renfrew; this plant, with an ultimate capacity of 160,000 h.p., is expected to be in

partial operation early in 1951. Preliminary construction operations were proceeding at the La Cave site on the Ottawa River near Mattawa, for initial operation late in 1951; ultimate plans call for eight units of 34,000 h.p. each. On the Mississagi River, near Thessalon, the high dam at the Tunnel site was nearing completion and work on the powerhouse was under way; the plant, with two units of 29,000 h.p. each, is scheduled for 1950 operation. At the Pine Portage site on the Nipigon River, diversion of the river flow was completed and work on the main dam and powerhouse well advanced; two units of 40,000 h.p. each will be brought into operation in 1950, and provision is being made for two additional units when required.

Aside from the Commission's operations, the Great Lakes Power Company reports an increased capacity of 2,300 h.p. at its Upper Falls, Montreal River, plant due to raising of the dam during 1948. The Company is also installing a new unit of 22,000 h.p. in its plant on the Michipicoten River for operation in 1950.

*Quebec.*—The Shawinigan Water and Power Company, serving a large area in Quebec from generating plants and purchased power totalling 1,480,000 h.p., completed its new plant at Shawinigan Falls by bringing into operation the second and third units of 65,000 h.p. each. During 1949, the Company also made good progress on its 320,000-h.p. development at La Trenche Rapids on the St. Maurice River; the cofferdams in the main river have been completed, the river diverted through a by-pass channel, and work is proceeding on schedule on the main dam. Initial operation is planned for 1951.

The Gatineau Power Company completed the building of a dam on the Rocher Fendu channel of the Ottawa River and in October brought into operation its new unit of 27,000 h.p. in the Bryson plant.

The Northern Quebec Power Company has completed raising the head on its plant on the Quinze River by 20 ft., thus allowing an increase of 10,000 h.p. in the capacity of its present plant. Work is also proceeding on the construction of a new powerhouse to contain initially one unit of 35,000 h.p., with provision for an additional similar unit.

The Quebec Hydro-Electric Commission, serving chiefly the city of Montreal and environs, was actively engaged in the construction, under contract, of its new powerhouse at Beauharnois, St. Lawrence River, which will have a capacity of 300,000 h.p., with partial operation scheduled for 1951; ultimately the plant may be increased to 600,000 h.p. As administrator for the Quebec Government's Rapid VII plant on the Ottawa River, the Commission completed the installation of a new unit of 16,000 h.p.

Other smaller additions to installed capacity in Quebec during 1949 include: town of Mont Laurier, 2,640 h.p. on the Lièvre River; town of Pembroke, Ont., 3,000 h.p. on Black River; town of Jonquière, 4,200 h.p. on Aux Sables River; Ogilvie Flour Mills, 3,200 h.p. on the Lachine Canal.

*British Columbia.*—The British Columbia Power Commission brought into operation the third and fourth units of 28,000 h.p. each in its John Hart Development, Campbell River, Vancouver Island; provision has been made for two additional units when required; the storage dam at Ladore Falls also was completed during 1949. Good progress was made at the Commission's project at Whatshan Lake, in central British Columbia, which will have an initial capacity of 30,000 h.p.; the plant will be located on the shore of Lower Arrow Lake and will be served by a two-mile tunnel.





*The main dam at Des Joachims on the Ottawa River, showing the first pair of penstocks in position. Rapid progress is being made on this 480,000 h.p. development, where 2,500 men are employed.*



*The Pine Portage project on the Nipigon River will, when completed, supply an additional 160,000 h.p. to the important pulp and paper and other growing industries in that area. Two of its four units are scheduled to go into service in 1950.*



On Bridge River, a tributary of the Fraser River, the British Columbia Electric Railway Company completed the installation of the second and third units of 62,000 h.p. each; ultimately, the plant may contain ten units; the project involves a storage dam upstream at Lajoie Falls which has been virtually completed.

The Consolidated Mining and Smelting Company brought into operation a third unit of 37,000 h.p. in its Brilliant plant on the Kootenay River. The city of Nelson also put on load a new unit of 6,750 h.p. in its plant at Upper Bonnington Falls, Kootenay River.

Active investigations were carried on throughout the year by the Aluminum Company of Canada in connection with possible high-head sites of large capacity to be served by the diversion of the head waters of the Fraser River through tunnels to the coast.

*Prairie Provinces.*—No new developments were made in Alberta, but Calgary Power, Limited, proceeded with a development of about 65,000 h.p. at Spray Lake in the upper Bow River basin; initial production is planned for the late autumn of 1950.

In Manitoba, the Winnipeg Electric Company brought into operation the fourth unit in its Seven Sisters plant on the Winnipeg River. The raising of the plant head to its ultimate height of 66 feet was partially completed,



*Linemen patrolling the thousands of miles of transmission lines throughout Ontario may soon be discharging a good portion of their normally rigorous duties from the 'plexiglass' cockpit of a helicopter. The first inspection covered 650 miles of line in 18½ hours flying time; a corresponding inspection from the ground would have required 26 men working 600 man-hours.*

and late in 1949 the four units were operating at a 63-ft. head with a capacity of approximately 35,000 h.p. each, the total increase in plant capacity during the year being 44,000 h.p. Unit No. 5 is under installation for operation early in 1950. The Government of Manitoba has under active construction a development of 114,000 h.p. at Pine Falls on the Winnipeg River; initial operation is scheduled for 1951.

*Nova Scotia.*—The Nova Scotia Light and Power Company completed the addition of 4,500 h.p. to its plant on Black River. The Nova Scotia Power Commission has made good progress in its development of 12,000 h.p. on the Mersey River which is expected to be in operation in 1950.

## Central Electric Stations

Central electric stations are companies, municipalities or individuals selling or distributing electric energy generated by themselves or purchased for resale. They are divided into two classes according to ownership: (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or provincial governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 87 p.c. of the total capacity of hydraulic installations in all industries in Canada and the generators driven by this hydraulic equipment generate 97 p.c. of the total output of all central electric stations. The fuel stations number 297 and 44 hydraulic stations have thermal auxiliary equipment.

Statistics for the production of electricity by central electric stations were first compiled in 1919. From the 5,500,000,000 kwh. produced in that year the output doubled by 1925, and reached 18,000,000,000 kwh. by 1930. After a period of decline in the early 1930's, there was an almost continuous succession of increases and in 1948 the average monthly output was eight times what it had been in 1919, despite low water in many localities.

### Average Monthly Output of Central Electric Stations, 1929-49

| Year      | From Water | From Fuel | Total     | Year      | From Water | From Fuel | Total     |
|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|
|           | '000 kwh.  | '000 kwh. | '000 kwh. |           | '000 kwh.  | '000 kwh. | '000 kwh. |
| 1929..... | 1,441,203  | 27,622    | 1,468,825 | 1944..... | 3,290,538  | 81,637    | 3,372,175 |
| 1932..... | 1,296,360  | 25,845    | 1,322,205 | 1945..... | 3,262,771  | 78,946    | 3,341,717 |
| 1939..... | 2,321,815  | 40,811    | 2,362,626 | 1946..... | 3,382,602  | 84,374    | 3,466,976 |
| 1941..... | 2,731,880  | 55,233    | 2,787,113 | 1947..... | 3,657,843  | 91,021    | 3,748,864 |
| 1942..... | 3,037,823  | 62,109    | 3,099,932 | 1948..... | 3,613,200  | 108,800   | 3,722,000 |
| 1943..... | 3,299,998  | 64,807    | 3,364,805 | 1949..... | 3,757,024  | 132,411   | 3,889,435 |

Revenues of central stations in 1947 amounted to \$238,929,627 and 2,246,253 domestic customers were served, representing approximately two-thirds of all families in Canada, both urban and rural.

Electric energy is exported from Canada only under licence and an export tax of 0.03 cent per kwh. is levied. Exports showed a steady increase from 1936 to 1945 (amounting to 2,646,435,000 kwh. in 1945) but declined sharply to 1,743,107,000 kwh. in 1948; increasing domestic demand and low water levels left less available for export.



*"Grand Bank" fishing is carried on from trawlers or draggers throughout the entire year. The vessels are away from home ports for days or weeks at a time, returning periodically to hand over the catch and obtain supplies. The catch is mostly cod.*



## ★ Fisheries

With the entry of Newfoundland into Confederation, Canada, one of the main fish-producing countries of the world, becomes the leading fish-exporting country in terms of dollar value. Norway exports larger quantities of fish, but Canada, because of her higher-priced products, such as Atlantic lobster and Pacific salmon, stands in first place by value. Canadian fishery products are marketed in many countries.

Canada has ready access to the world's most extensive fishing grounds. Near the Atlantic Coast are the rich 'banks', a submerged range of hills stretching northeastward for about 1,000 miles from Cape Cod to the Grand Banks off the Newfoundland Coast. Fishing craft from Britain, France, Spain and Portugal have for centuries reaped bountiful harvests from the sea on these grounds.

While offshore or bank fisheries are carried on from both Pacific and Atlantic ports, the term is more properly applied to the Atlantic fleet engaged in taking cod, haddock, halibut and similar groundfish. The halibut fishing grounds of the Pacific are extensions of the continental shelf and do not run more than 60 or 70 miles from land.

In 1949 production of the Canadian sea fisheries decreased in both quantity and value as compared with 1948. The total value of landings, excluding those of Newfoundland, was estimated at \$57,000,000 or \$6,000,000 lower than in 1948. This decrease was due to smaller landings on both coasts and to a slight drop in price for a number of the important species of fish. Total landings were about 1,200,000,000 lb. in 1949 compared with 1,285,500,000 lb. in 1948. Significant decreases were shown in the 1949 catches of sardines and of cod and related species on the east coast, and of herring on both coasts.

The inland fisheries generally yielded larger catches in 1949, but some of the more valuable species dropped in price.

**Atlantic Coast.**—On the east coast, excluding Newfoundland, the production of salted and dried fish (cod and related species) has increased from year to year since 1945. There are indications that 1949 production will be well above that of 1948. Fresh and frozen products, on the other hand, were at a low level in 1949. The total production of fresh and frozen fillets from the above species is estimated at 40,000,000 lb., compared with about 46,000,000 lb. in 1948.

The production of smoked products from cod and haddock was slightly lower than the previous year's estimate of 10,500,000 lb. The pack of canned fish from these species (chicken haddie, flaked fish, etc.) was 43,800 cases, compared with 92,000 cases in 1948.

The catch of lobsters on Canada's east coast reached about 37,150,000 lb., which was 1,300,000 lb. more than in 1948; landed value, at \$10,000,000, was slightly higher. The total quantity canned was 63,000 cases (96.6 oz.)

and, in addition, 1,385,000 lb. of chilled and frozen meat were packed. The amount marketed alive should thus be in the vicinity of 20,725,000 lb. compared with 21,500,000 lb. in 1948.

The catch of mature herring at about 120,500,000 lb. fell short of the 1948 catch by 6,500,000 lb. However, there was an increase in 1949 in the production of pickled, vinegar-cured and smoked products from herring. The amount canned, excluding kippered snacks, was 8,850 cases (48·13 oz.), compared with 93,500 cases in 1948: however, the production of kippered snacks is indicated to be higher in 1949.

The sardine fishery was rather poor in 1949. The total catch was only 65,000,000 lb., approximately 70 p.c. of the 1948 catch. The total pack of canned sardines was about 595,000 cases, the lowest in recent years.

**Newfoundland.**—The Newfoundland fisheries during the 1949 season have produced at satisfactory levels. The salted codfish production, which is the backbone of the fisheries industry in that Province, was at a higher level than in 1948 and was estimated at 108,500,000 lb. However, the herring fishery in the 1948-49 winter season was rather disappointing.

The Newfoundland production of frozen fillets was lower than in 1948; while there was an important increase in the production of haddock and rose-fish fillets, that of codfish fillets was low. The total production of fillets in 1949 is estimated at about 24,000,000 lb.



*Cod fishermen bait their hooks. The value of the cod fishery off the east coast of Canada amounts to about \$15,000,000 a year.*





*Salmon fishing off the British Columbia coast. With net and troll-line, the world's largest salmon fleet provides the raw material for 20 canneries on a 24-hour production basis.*

**Pacific Coast.**—The landings of salmon on the Pacific Coast reached 143,900,000 lb. in 1949 compared with 145,200,000 lb. in the previous year. The landed value at \$16,000,000 for the year was \$4,000,000 less than in 1948, due to a recession in price and to heavier landings of lower-priced salmon. The total pack of canned salmon in 1949 was 1,434,000 cases. Most significant compared with the previous year was the increase in the pack of pink salmon and the decrease in the pack of chum salmon.

The herring fishery on the West Coast operated at an exceptionally high level in the 1948-49 fall and winter season and the total catch reached 349,400,000 lb. The main products were meal and oil, 31,706 tons of the former and 12,564 tons of the latter being produced.

The catch of halibut, at 17,600,000 lb., was 1,200,000 lb. less than in 1948, though the landed value of this catch at \$2,800,000 was only \$70,000 below that of the previous year.

**Inland Fisheries.**—Canada's important inland species are lake trout, pickerel, whitefish, tullibee, saugers and pike. These species account for an annual catch worth about \$15,000,000; about half the production comes from



the Great Lakes of Ontario, one-quarter from the lakes of Manitoba, and the balance from Quebec, New Brunswick, Saskatchewan, Alberta, Yukon and the Northwest Territories.

The catch in 1949 compared very favourably with that of the previous year. Exports of fresh-water fish were valued at \$14,200,000 as against \$13,700,000 in the previous year, the increase being accounted for by a 30 p.c. increase in exports of the filleted form. These figures are significant because about 75 p.c. of Canadian fresh-water fish production is exported. During the year some species experienced a significant drop in price.

**Marketing.**—In general, from the standpoint of both volume and value, sales of the 1949 production of fresh and frozen fisheries products were maintained at a very satisfactory level in the domestic market, and at a reasonably satisfactory level in the United States considering the stock and price adjustments that took place in that market. With few exceptions, price fluctuations on the domestic market followed the usual seasonal pattern reflecting scarcity or relative abundance rather than any marked general downward trend.

Total exports of fish and fish products for 1949 amounted to about \$100,000,000 including approximately \$15,000,000 attributable to exports from Newfoundland since April 1. Exports for the other provinces totalled about \$85,000,000 in 1949 compared with \$89,800,000 in 1948. The decrease was more than accounted for in the first two months of the year, when nothing comparable to the relief shipments of 1948 moved out: from March on, total exports held up very well.

For Newfoundland alone, exports in 1949 amounted to over \$21,000,000 for the calendar year. Exports of frozen fillets were slightly lower than in 1948. The small 1948 stocks of bank and shore salted cod were cleaned out, but sales of the higher production of the new season were slower. Southern European markets absorb 40 p.c. of Newfoundland salt-cod sales with the result that exports from that Province depend on the ability of those countries to pay for their supplies in dollars.

Consumption of fish in Canada appears to be increasing. For 1948, the per capita figure was 12.2 lb. (estimate) as compared with 11.5 lb. per capita consumed in 1947.



*Sardine canning,  
Black's Harbour,  
N.B.*



*Trout-rearing station at Sault Ste. Marie, Ont., part of the Ontario Government's effort to keep lakes and streams stocked with fish.*

*Feeding troutlings in an outdoor pond.*



**Government Co-operation.**—The Fisheries Prices Support Board, established to assist Canada's fisheries to achieve an orderly reconversion from wartime abnormality to the operating conditions of peace, took direct action in 1949 to help east coast canners and Manitoba lake fishermen. The Board maintains a field staff operating in all major fishing areas to ascertain background and current information on levels of income to fishermen, costs of fishing operations and other factors pertaining to the well-being of fishermen in relation to the Board's responsibility.

The Fisheries Research Board of Canada, one of the world's largest and most effective fisheries research institutions, has for 50 years carried on scientific investigation directed toward the improvement and perpetuation of Canadian fisheries. Its work in the biological, technological and oceanographic fields has been responsible in no small measure for promoting the interests of the fisheries of Canada.



## Statistics of Production

During the twentieth century, the commercial fisheries of Canada have shown the effects of wars and depressions, both in numbers of persons employed and in values of equipment and products. With the general rising trend of prices, values have increased, notably since the beginning of the Second World War. The number of fishermen declined from 82,871 in 1905 to 53,517 in 1923, and rose again to 73,514 in 1946; the 1947 figure was 65,419. Total employment, including the processing industry, reached a peak of 102,182 in 1915, dropped to 68,964 by 1923, and rose to another peak, of 92,910, in 1946; for 1947 the total number employed was 84,050.

The quantity of fish and shellfish landed, for which the earliest available figure is 921,500,000 lb. in 1918, has since fluctuated between 828,900,000 lb. recorded in 1921, and 1,337,200,000 lb. in 1945; for 1947 the total landed weight was 1,220,800,000 lb., 97,800,000 lb. lower than the 1946 figure. The market value of all fishery products, reported at \$21,600,000 in 1900, reached \$60,300,000 in 1918; thereafter it varied to as low as \$25,900,000 in 1932, but did not again exceed \$57,000,000 until it rose to \$62,300,000 in 1941. Each year since then has recorded an increase, until in 1947 the total value reached \$123,900,000, about 2 p.c. higher than the 1946 figure of \$121,100,000.

The value of fishing craft and equipment increased from \$5,700,000 in 1900 to \$31,400,000 in 1919; from then until 1943 it fluctuated between \$23,500,000 (1924) and \$34,000,000 (1929); since 1943 it has risen, by larger steps each year, to \$47,400,000 in 1946 and \$58,600,000 in 1947.

The following table shows the total market value of production, by provinces, for 1947, compared with average figures for the five-year period 1935-39 and percentages of these to the total values for Canada. The chief kinds of fish for each province and territory are also shown, with the total market values for Canada for each kind.



*Chicken haddie canning at Souris, P.E.I. The fish is packed into parchment-lined cans and weighed before proceeding to the vacuum and sealing machines.*



**Market Values of Fish Production, by Provinces, 1947, and Averages  
1935-39, together with Chief Kinds of Fish, by Provinces, 1947**

| Province or Territory  | Market Values of Production |                | Percentages of Total Values |              | Values in 1947 of Chief Commercial Fishes |                       |        |
|------------------------|-----------------------------|----------------|-----------------------------|--------------|---|-----------------------|--------|
|                        | Average 1935-39             | 1947           | Average 1935-39             | 1947         | Kind                                      | Province or Territory | Canada |
|                        | \$'000                      | \$'000         | p.c.                        | p.c.         |   | \$'000                | \$'000 |
| Prince Edward Island.. | 921                         | 2,897          | 2.4                         | 2.4          | Lobsters..                                | 1,156                 | 10,751 |
|                        |                             |                |                             |              | Cod.....                                  | 441                   | 14,467 |
|                        |                             |                |                             |              | Hake.....                                 | 323                   | 1,268  |
| Nova Scotia.....       | 8,709                       | 26,659         | 22.6                        | 21.5         | Cod.....                                  | 9,665                 | 14,467 |
|                        |                             |                |                             |              | Lobsters..                                | 5,535                 | 10,751 |
|                        |                             |                |                             |              | Haddock..                                 | 2,424                 | 2,479  |
| New Brunswick.....     | 4,375                       | 17,132         | 11.3                        | 13.8         | Sardines..                                | 6,610                 | 6,617  |
|                        |                             |                |                             |              | Lobsters..                                | 3,611                 | 10,751 |
|                        |                             |                |                             |              | Herring...                                | 2,311                 | 17,951 |
| Quebec.....            | 1,983                       | 5,317          | 5.1                         | 4.3          | Cod.....                                  | 2,963                 | 14,467 |
|                        |                             |                |                             |              | Herring...                                | 593                   | 17,951 |
|                        |                             |                |                             |              | Lobsters..                                | 449                   | 10,751 |
| Ontario.....           | 3,208                       | 5,404          | 8.3                         | 4.4          | Whitefish.                                | 1,441                 | 3,562  |
|                        |                             |                |                             |              | Herring...                                | 941                   | 17,951 |
|                        |                             |                |                             |              | Pickarel..                                | 753                   | 3,519  |
| Manitoba.....          | 1,638                       | 5,329          | 4.2                         | 4.3          | Pickarel..                                | 2,525                 | 3,519  |
|                        |                             |                |                             |              | Whitefish.                                | 853                   | 3,562  |
|                        |                             |                |                             |              | Saugers...                                | 845                   | 880    |
| Saskatchewan.....      | 419                         | 1,171          | 1.1                         | 0.9          | Whitefish.                                | 571                   | 3,562  |
|                        |                             |                |                             |              | Trout....                                 | 301                   | 1,231  |
|                        |                             |                |                             |              | Pickarel..                                | 139                   | 3,519  |
| Alberta.....           | 378                         | 857            | 1.0                         | 0.7          | Whitefish.                                | 393                   | 3,562  |
|                        |                             |                |                             |              | Tullibee..                                | 280                   | 785    |
|                        |                             |                |                             |              | Pickarel..                                | 81                    | 3,519  |
| British Columbia.....  | 16,986                      | 58,596         | 44.0                        | 47.3         | Salmon...                                 | 35,520                | 36,278 |
|                        |                             |                |                             |              | Herring...                                | 12,100                | 17,951 |
|                        |                             |                |                             |              | Halibut...                                | 5,944                 | 6,531  |
| Yukon.....             | 11                          | 7              | --                          | --           | Salmon...                                 | 4                     | 36,278 |
|                        |                             |                |                             |              | Whitefish.                                | 3                     | 3,562  |
| Northwest Territories. | 1                           | 531            | ...                         | 0.4          | Whitefish.                                | 290                   | 3,562  |
|                        |                             |                |                             |              | Trout....                                 | 224                   | 1,231  |
| <b>Canada.....</b>     | <b>38,628</b>               | <b>123,900</b> | <b>100.0</b>                | <b>100.0</b> |   |                       |        |

<sup>1</sup> Not collected before 1945.

**Numbers, Employment and Production of Fish-Processing Establishments, 1937-47**

| Year      | Establishments |                     | Employees |                     | Value of Production |                     | P.C. of Total Value of Fish Marketed Fresh |
|-----------|----------------|---------------------|-----------|---------------------|---------------------|---------------------|--|
|           | No.            | P.C. of 1939 Figure | No.       | P.C. of 1939 Figure | \$'000              | P.C. of 1939 Figure |  |
| 1937..... | 597            | 114.1               | 14,044    | 94.8                | 26,089              | 90.5                | 27   |
| 1939..... | 523            | 100.0               | 14,814    | 100.0               | 28,817              | 100.0               | 28   |
| 1941..... | 463            | 88.5                | 15,842    | 106.9               | 48,176              | 167.2               | 24   |
| 1943..... | 523            | 100.0               | 15,899    | 107.3               | 64,805              | 224.9               | 33   |
| 1945..... | 540            | 103.3               | 17,501    | 118.1               | 93,545              | 324.6               | 41   |
| 1946..... | 586            | 112.0               | 19,396    | 130.9               | 100,124             | 347.4               | 38   |
| 1947..... | 594            | 113.6               | 18,631    | 125.8               | 105,206             | 365.1               | 33   |



The fur trade was Canada's first industry and remained so during the early years of exploration and settlement. It was the demand for furs from Europe and the resulting competition and rivalries among the traders that sent the explorers farther and farther into the wilderness opening up new districts that eventually lured the settlers. As civilization advanced, other industries grew and the fur trade inevitably became relatively less and less important until to-day it is a minor item on the Canadian production record. Nevertheless, Canada is still one of the great natural fur preserves of the world. In her vast northern regions trapping is still the means of livelihood for many of the inhabitants—Indian, half-breed and white man alike. Each year about 7,000,000 pelts are taken, 90 p.c. of them wild furs.

The importance of the preservation of this great natural resource has been recognized by the Federal and Provincial Governments, and measures have been taken to control the catch by prohibition, close seasons and enforcement of trapping regulations. All provinces and territories license individual trappers, trap lines or trapping areas. In Northern Canada, where trappers are widely scattered over vast areas, the enforcement of such regulations is difficult, but through increased staffs of game officials, better education of the trappers in conservation practices and more complete information concerning the areas involved, a continuous improvement in this line is evident. Scientific studies, also, have revealed detailed information which is of great assistance in conserving or restoring to certain areas valuable species of wildlife that formerly abounded there. Thus conditions for the production of beaver and muskrat are readily improved through rehabilitation of the marshes and water areas that constitute their homes.

The total number of pelts taken, wild and from fur farms, in each of the past ten years, is shown in the following table.

**Numbers and Values of Pelts Taken, Years Ended June 30, 1939-48**

| Year Ended June 30 | Pelts      |            | P.C. of Value Sold from Fur Farms | Year Ended June 30 | Pelts     |            | P.C. of Value Sold from Fur Farms |
|--------------------|------------|------------|-----------------------------------|--------------------|-----------|------------|-----------------------------------|
|                    | Number     | Value      |                                   |                    | Number    | Value      |                                   |
|                    |            | \$         |                                   |                    |           | \$         |                                   |
| 1939.....          | 6,492,222  | 14,286,937 | 40                                | 1944.....          | 6,324,240 | 33,147,392 | 28                                |
| 1940.....          | 9,620,695  | 16,668,348 | 31                                | 1945.....          | 6,994,686 | 31,001,456 | 31                                |
| 1941.....          | 7,257,337  | 21,123,161 | 27                                | 1946.....          | 7,593,416 | 43,870,541 | 30                                |
| 1942.....          | 19,561,024 | 24,859,869 | 19                                | 1947.....          | 7,486,914 | 26,349,997 | 37                                |
| 1943.....          | 7,418,971  | 28,505,033 | 24                                | 1948.....          | 7,952,146 | 32,232,992 | 37                                |

Ontario leads the provinces in value of fur production, having accounted for 25 p.c. of the total in the year ended June 30, 1948. Manitoba produced 19 p.c. of the total, Alberta 16.5 p.c. and Saskatchewan and Quebec each 11 p.c. The numbers of pelts taken in both Alberta and Manitoba were higher than in Ontario, but in those provinces muskrat and squirrel, which are lower-priced furs, made up the major portion of the total while in Ontario the more valuable mink, beaver and fox pelts brought the total value to a much higher level.



**Numbers and Values of Pelts Taken, by Provinces, Years Ended  
June 30, 1947 and 1948**

| Province or Territory   | 1947             |                   |                     | 1948             |                   |                     |
|-------------------------|------------------|-------------------|---------------------|------------------|-------------------|---------------------|
|                         | Pelts            | Value             | P.C.<br>of<br>Total | Pelts            | Value             | P.C.<br>of<br>Total |
|                         | No.              | \$                |                     | No.              | \$                |                     |
| Prince Edward Island..  | 35, 168          | 658, 962          | 2.5                 | 40, 603          | 568, 715          | 1.8                 |
| Nova Scotia.....        | 160, 935         | 716, 009          | 2.7                 | 137, 248         | 622, 617          | 1.9                 |
| New Brunswick.....      | 66, 113          | 834, 641          | 3.2                 | 67, 071          | 453, 159          | 1.4                 |
| Quebec.....             | 511, 485         | 3, 913, 915       | 14.8                | 437, 459         | 3, 458, 928       | 10.7                |
| Ontario.....            | 1, 142, 490      | 7, 005, 904       | 26.6                | 1, 188, 531      | 8, 132, 455       | 25.2                |
| Manitoba.....           | 1, 348, 730      | 3, 099, 159       | 11.8                | 1, 491, 638      | 6, 105, 926       | 19.0                |
| Saskatchewan.....       | 1, 086, 464      | 2, 303, 554       | 8.7                 | 1, 181, 662      | 3, 500, 943       | 10.9                |
| Alberta.....            | 1, 837, 653      | 3, 738, 788       | 14.2                | 2, 174, 744      | 5, 313, 956       | 16.5                |
| British Columbia.....   | 751, 060         | 2, 047, 135       | 7.8                 | 619, 543         | 1, 973, 874       | 6.1                 |
| Yukon.....              | 58, 777          | 373, 176          | 1.4                 | 131, 227         | 230, 117          | 0.7                 |
| Northwest Territories.. | 488, 039         | 1, 658, 754       | 6.3                 | 482, 420         | 1, 872, 302       | 5.8                 |
| <b>Canada.....</b>      | <b>7,486,914</b> | <b>26,349,997</b> | <b>100.0</b>        | <b>7,952,146</b> | <b>32,232,992</b> | <b>100.0</b>        |

Few industries are subject to more violent fluctuations than the fur industry. Prices of pelts rise and fall like stocks and bonds, for not only must the cycles of animal productivity be reckoned with but also the vagaries of Dame Fashion. Red, black, silver, cross and then platinum fox and other long-haired furs have had their day, but recently the short-haired furs have become more popular. In the 1947-48 season mink skins contributed the highest amount to the total value, followed by muskrat, beaver, fox pelts of all types, squirrel and ermine pelts. The increase in total value as compared with 1946-47 was partly due to higher average prices for beaver, ermine, muskrat, and squirrel skins and partly to increases in the numbers of beaver, mink and muskrat pelts taken. Beaver pelts increased by 8,000, standard mink by 184,000, mutation mink by 28,000 and muskrat by 773,000. The average price of beaver rose from \$29.46 to \$32.31, ermine from \$1.61 to \$2.27, muskrat from \$1.94 to \$2.67 and squirrel from 44 cents to 62 cents. The prices of all types of fox pelts, except for blue fox, were lower than in 1946.



*Chipewyan  
Indian woman  
stretching a  
beaver skin  
on a frame  
made of wil-  
low.*



*A mink farm near Chicoutimi, Que.*

### *Fur Farming*

Scientific breeding has revolutionized the fur industry. Not only has it stabilized business for the fur farmer, but it has brought new glamorous furs into existence. Blond, pure white and silverblu mink and many colour phases of fox now grace the shoulders of fashionable women.

Fur farming is carried on in all provinces of Canada. Of the 6,147 farms operating in the calendar year 1947, 1,374 were in Quebec, 1,425 in Ontario and 940 in Alberta. The recent decline in the popularity of long-haired fur resulted in a decrease in 1947 of 996 in the number of farms raising foxes, while the number of mink farms increased by 178 in the same year. Of course both mink and fox, as well as other fur animals, are in many cases raised on the same farm and an increase in the saleability of one type of fur means a change-over to production of that type. In 1947 there were 285,128 standard and mutation mink valued at \$10,311,507 on 3,757 farms, and 64,524 foxes of all types valued at \$2,171,323 on 2,733 farms. All other types of animals raised in captivity, including chinchilla, coyote, fisher, fitch, lynx, marten, nutria, raccoon and skunk, numbered only 5,016.

In 1947, 757,484 pelts valued at \$11,717,496 were sold from fur farms. This was an increase of almost 120 p.c. in number and 73 p.c. in value over 1946 sales. Average prices of all pelts, except fitch and raccoon, sold from fur farms were lower than in 1946.

The capital value of fur farms in Canada in 1947 for land and buildings was \$12,345,274 and for fur animals \$14,115,949, a total capital of \$26,461,223.

*A platinum (silverblu) mink.*







*Canadian girls wearing Canadian furs. Scientific breeding and improved processing techniques have brought new glamour to fur garments.*

### *Fur Processing*

In 1947 the production of fur manufacturing establishments was valued at \$57,541,628. There were 616 establishments employing over 6,000 persons and paying out \$11,406,564 in salaries and wages. Over 70 p.c. of their production was women's coats. The peak year for fur prices in Canada was 1946. Since then, although the price of pelts has dropped, in most lines the price of the finished garment has not diminished to the same extent. One reason is the high cost of labour. The lowest-paid fur workers in the larger centres earn from \$30 to \$35 for a 40-hour week, and cutters, if they are good, may earn from \$80 to \$120 a week.

There are also in Canada 24 fur-dressing and dyeing establishments which paid out \$2,353,951 in salaries and wages to 1,359 employees in 1947.

### *Fur Trade*

At the present time the United Kingdom and the United States are Canada's best customers for fur pelts, although Canadian furs have a world-wide distribution. Montreal is the leading fur market in Canada, but auction sales are also held at Vancouver, Edmonton, Regina and Winnipeg.

The Canadian fur trade, both exports and imports, is chiefly in undressed furs; the value of dressed and manufactured furs going out of Canada or coming in make up a comparatively small portion of the total. A good part of the exports consists, of course, of those furs which Canada produces in greatest



abundance, mink being the most valuable followed by beaver, muskrat and fox. On the other hand, such furs as Persian lamb, certain types of muskrat, rabbit and squirrel, opossum and raccoon, which are not produced to any extent in Canada, make up the major portion of the imports.

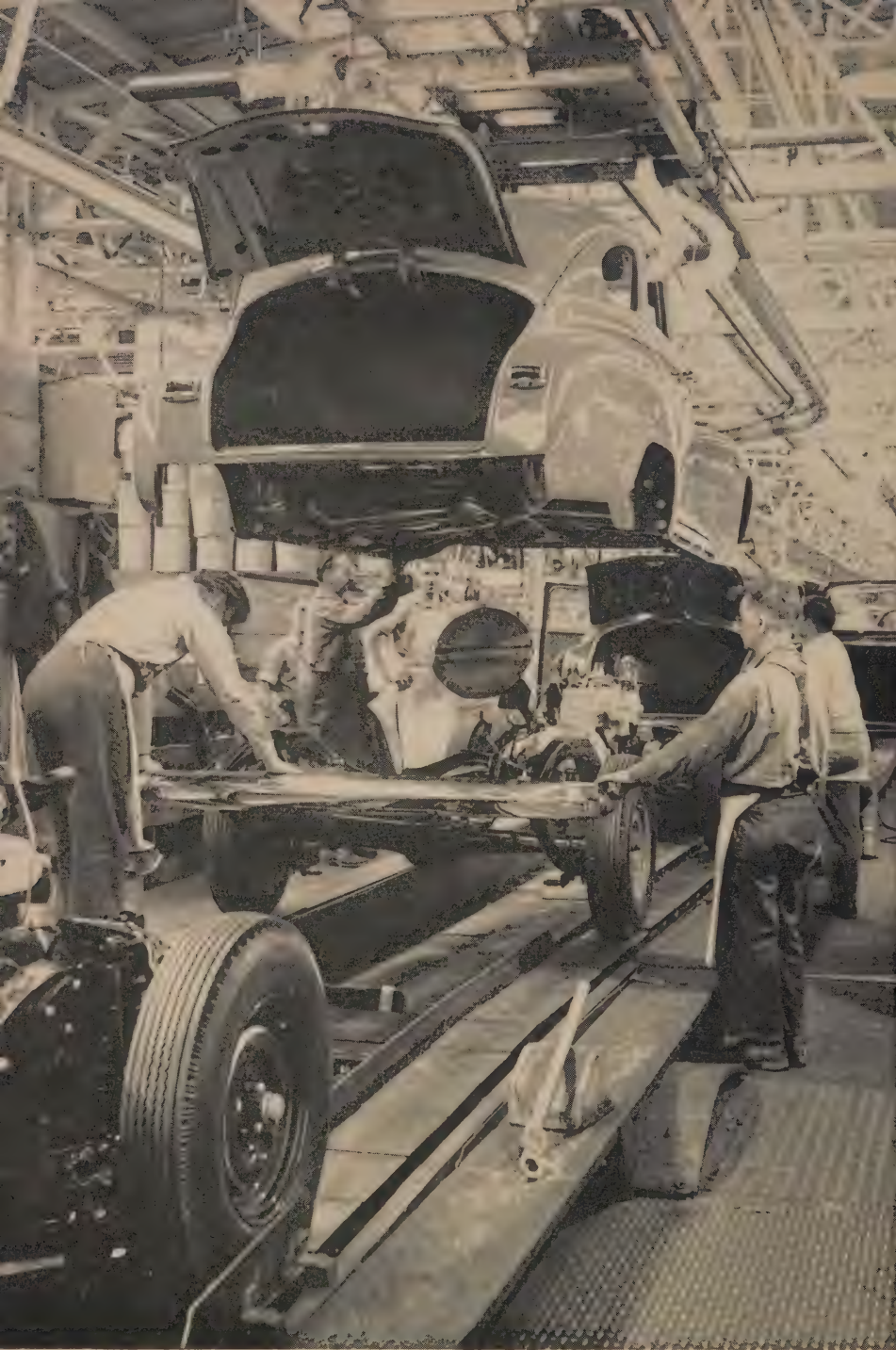
*Exports and Imports of Raw and Dressed Furs, 1939-48*

| Year      | Exports <sup>1</sup> |               |               | Imports        |               |               |
|-----------|----------------------|---------------|---------------|----------------|---------------|---------------|
|           | United Kingdom       | United States | All Countries | United Kingdom | United States | All Countries |
|           | \$                   | \$            | \$            | \$             | \$            | \$            |
| 1939..... | 7,054,745            | 6,772,641     | 14,568,986    | 1,018,417      | 4,455,938     | 7,133,052     |
| 1940..... | 3,306,271            | 12,187,096    | 16,176,075    | 920,528        | 6,813,080     | 8,885,540     |
| 1941..... | 430,428              | 14,883,751    | 16,159,033    | 1,970,910      | 4,112,345     | 9,120,337     |
| 1942..... | 156,586              | 16,869,153    | 17,976,615    | 945,360        | 3,306,214     | 6,448,861     |
| 1943..... | 66,844               | 25,086,912    | 26,448,522    | 496,578        | 4,923,632     | 8,613,879     |
| 1944..... | 28,321               | 25,748,651    | 27,029,329    | 250,280        | 6,832,775     | 11,434,257    |
| 1945..... | 1,363,727            | 26,755,604    | 29,572,474    | 262,775        | 9,078,294     | 21,205,173    |
| 1946..... | 10,842,086           | 19,679,471    | 32,291,425    | 765,577        | 14,764,115    | 27,291,573    |
| 1947..... | 7,378,628            | 20,342,001    | 29,047,741    | 697,737        | 18,586,408    | 22,451,123    |
| 1948..... | 7,965,968            | 15,615,058    | 24,117,782    | 437,805        | 21,153,883    | 24,567,786    |

<sup>1</sup> Canadian produce only.

*Packing fox pelts for shipment.*





Car body is dropped on the chassis. Close-coupled scheduling is required to ensure the arrival on the four-mile long assembly line of the right part at the right time.



# Secondary Production

## ★Manufactures

TO-DAY, Canada ranks as an important manufacturing country of the world, and in the export of a number of manufactured products holds a dominant position.

The forward movement in the development of Canadian manufactures has been the result of three great influences: the opening of the west at the beginning of the present century, which greatly increased the demand for manufactured goods of all kinds, especially construction materials; the First World War which left a permanent imprint upon the variety and efficiency of Canadian plants; and the Second World War with its insatiable demands for food and manufactured materials of all sorts.

More especially during the Second World War the situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada, with greatly increased skills and plant capacity, has now entered a new era in manufacturing development.

### Statistics of Manufactures, 1870-1948

| Year                    | Estab-<br>lish-<br>ments | Capital   | Employees              | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|-------------------------|--------------------------|-----------|------------------------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                         | No.                      | \$'000    | No.                    | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| 1870.....               | 41,259                   | 77,964    | 187,942                | 40,851                   | 124,908                 | 96,710                      | 221,618                       |
| 1880.....               | 49,722                   | 165,303   | 254,935                | 59,429                   | 179,919                 | 129,757                     | 309,676                       |
| 1890 <sup>1</sup> ..... | 75,964                   | 353,213   | 369,595                | 100,415                  | 250,759                 | 219,089                     | 469,848                       |
| 1900 <sup>2</sup> ..... | 14,650                   | 446,916   | 339,173                | 113,249                  | 266,528                 | 214,526                     | 481,053                       |
| 1910 <sup>2</sup> ..... | 19,218                   | 1,247,584 | 515,203                | 241,008                  | 601,509                 | 564,467                     | 1,165,976                     |
| 1920 <sup>1</sup> ..... | 22,157                   | 2,914,519 | 591,753                | 711,080                  | 2,083,580               | 1,609,169                   | 3,692,748                     |
| 1929.....               | 22,216                   | 4,004,892 | 666,531                | 777,291                  | 2,029,671               | 1,755,387 <sup>3</sup>      | 3,883,446                     |
| 1933.....               | 23,780                   | 3,279,260 | 468,658                | 436,248                  | 967,789                 | 919,671                     | 1,954,076                     |
| 1937.....               | 24,834                   | 3,465,228 | 660,451                | 721,727                  | 2,006,927               | 1,508,925                   | 3,625,460                     |
| 1939.....               | 24,805                   | 3,647,024 | 658,114                | 737,811                  | 1,836,159               | 1,531,052                   | 3,474,784                     |
| 1940.....               | 25,513                   | 4,095,717 | 762,244                | 920,873                  | 2,449,722               | 1,942,471                   | 4,529,173                     |
| 1941.....               | 26,293                   | 4,905,504 | 961,178                | 1,264,863                | 3,296,547               | 2,605,120                   | 6,076,308                     |
| 1942.....               | 27,862                   | 5,488,786 | 1,152,091              | 1,682,805                | 4,037,103               | 3,309,974                   | 7,553,795                     |
| 1943.....               | 27,652                   | 6,317,167 | 1,241,068              | 1,987,292                | 4,690,493               | 3,816,414                   | 8,732,861                     |
| 1944.....               | 28,483                   | ..        | 1,222,882              | 2,029,621                | 4,832,333               | 4,015,776                   | 9,073,693                     |
| 1945.....               | 29,050                   | ..        | 1,119,372              | 1,845,773                | 4,473,669               | 3,564,316                   | 8,250,369                     |
| 1946.....               | 31,249                   | ..        | 1,058,156              | 1,740,687                | 4,358,234               | 3,467,004                   | 8,035,692                     |
| 1947.....               | 32,734                   | ..        | 1,131,750              | 2,085,926                | 5,534,280               | 4,292,050                   | 10,081,027                    |
| 1948.....               | ..                       | ..        | 1,162,000 <sup>4</sup> | 2,397,000 <sup>4</sup>   | 6,490,000 <sup>4</sup>  | 4,956,000 <sup>4</sup>      | 11,800,887 <sup>4</sup>       |

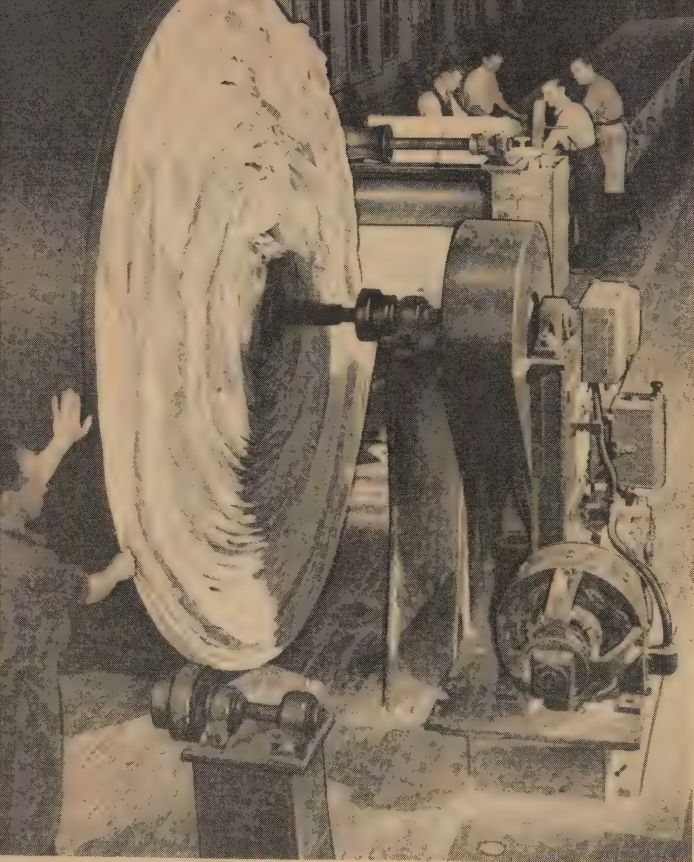
<sup>1</sup> From 1870 to 1890 and from 1920 to 1947 the figures include all establishments irrespective of the number of employees but exclude construction and custom and repair work.

<sup>2</sup> Includes all establishments employing five hands or over.

<sup>3</sup> For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this only the cost of materials is deducted.

<sup>4</sup> Estimate.





*Applying rubber face to a 1,200-ft. belt. The fabric between the layers of belt on the winder prevents the uncured rubber from sticking.*

The estimated value of manufactured products in 1948 reached the record total of \$11,800,887,000 as compared with a value of only \$3,474,784,000 in 1939. Although the record is not so impressive in terms of actual physical output, the expansion of Canadian manufacturing production since 1939, as represented by employment which more closely reflects changes in the physical volume of production, is still phenomenal. The number of employees stood at 1,162,000 in 1948, representing an increase of 77 p.c. over 1939; the 1948 figure was only about 6 p.c. lower than the record number employed in 1943 when Canada was engaged in full-scale war production.

**Geographical Distribution.**—Ontario with about 49 p.c. of the total, ranks as the premier manufacturing province of Canada. This position has been fairly uniformly maintained during the past 70 years. In spite of the rapid industrial development in Quebec, British Columbia and Manitoba in recent years, Ontario is maintaining a manufacturing production roughly equal to that of the remainder of Canada. The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forests, minerals, water powers, and agriculture; a large population and excellent water and rail transportation facilities to

other parts of the country; have all encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of United States industries, as in automobile manufacturing. Ontario also has the greatest diversification of manufacturing production of any province. Outstanding among the industries in which this Province is pre-eminent are those of automobiles, agricultural implements, starch, bicycles and carpet manufacture which are carried on practically in this Province alone. Aside from these, Ontario firms contribute over 50 p.c. of the Canadian total in the manufacture of: abrasives; miscellaneous non-ferrous metal products; leather tanneries; soap and washing compounds; rubber goods; cordage, rope and twine; clay products from imported clay; primary iron and steel; woollen yarn; electrical apparatus and supplies; aluminum products; salt; toilet preparations; coke and gas products; acids, alkalies and salts; flour and feed; hosiery and knitted goods; furniture; and glass products.

Quebec ranks second in importance contributing about 30 p.c. of the total value of manufactured products. The assets of Quebec that have tended to develop manufacturing industries include its natural resources of forests, water powers, minerals, and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going vessels to reach its main centres of population. Added to these natural advantages, there is a stable and industrious population, which is an important factor in industries such as textiles, clothing, boots and shoes, etc., where a large labour force is required. The production of pulp and paper occupies the premier position. In addition to accounting for about 11 p.c. of the gross value of Quebec

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*A large packing plant in Manitoba. Slaughtering and meat packing ranks second among the manufacturing industries of Canada, providing employment for over 22,000 persons.*







*A sawmill on Cowichan Lake, B.C. Accommodation for the workers is seen in the middle distance.*

manufactures, it furnishes about 49 p.c. of the total for Canada of this industry. Other industries in which Quebec predominates are: tobacco, cigars and cigarettes; cotton yarn and cloth; women's factory clothing; synthetic fibres and silk; leather boots and shoes; men's factory clothing; railway rolling-stock; fur goods; and hosiery and knitted goods. Quebec is an outstanding manufacturing province by reason of its large individual industries and not so much on account of a diversity of products.

British Columbia is the third most important manufacturing province of Canada with 9 p.c. of the total. The importance of the forests in the industrial life of the Province is emphasized by the fact that sawmilling, which accounts for about 25 p.c. of the total production, ranks as the leading industry, while pulp and paper with 7 p.c. of the total ranks second. Third

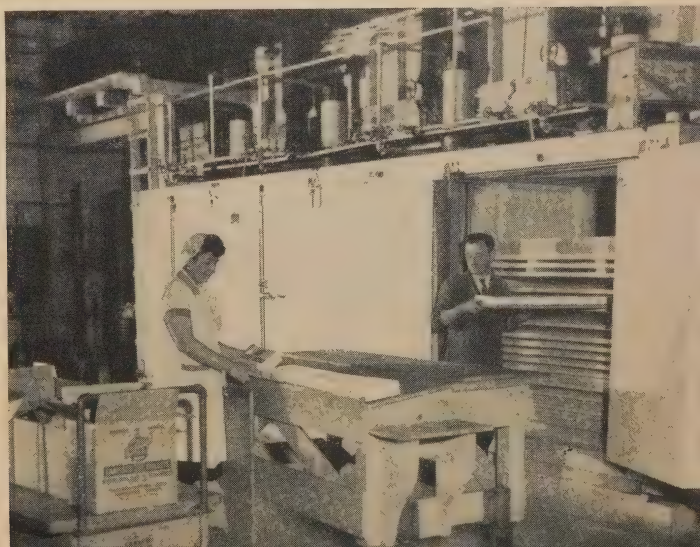


in importance is fish curing and packing, based principally on the estuarial salmon fisheries: British Columbia accounts for 44 p.c. of the total fisheries production of Canada. Slaughtering and meat packing is in fourth place and shipbuilding in fifth place.

In the Prairie Provinces the leading industries are those based on their agricultural resources—the grain-growing, cattle-raising and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor-vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development in the refining industry. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water powers, forests and, more recently, minerals, have given rise to quite a diversification of industrial production. Considering the Prairie Provinces as a unit, the following industries account for over 50 p.c. of total production: slaughtering and meat packing, flour and feed mills, butter and cheese, and petroleum products.

The Maritime Provinces comprise the smallest manufacturing unit of Canada. In Prince Edward Island the predominant agricultural and fishery resources make butter and cheese, and fish curing and packing the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries, as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of primary iron and steel, shipbuilding and repairs, fish curing and packing, sawmills, pulp and paper, and butter and cheese. In addition to this, important petroleum refineries and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, although fish and agricultural products, sugar refining and production, and railway rolling-stock add to the varied output.

*Fillets of sole being placed in a quick-freezing unit.*



**Statistics of Manufactures, by Provinces and Standard Classification Groups, 1947**

| Province and Group                         | Estab-lish-ments | Employees        | Salaries and Wages | Cost of Materials | Net Value of Products | Gross Value of Products |
|--|------------------|------------------|--------------------|-------------------|-----------------------|-------------------------|
|  | No.              | No.              | \$'000             | \$'000            | \$'000                | \$'000                  |
| Prince Edward Island..                     | 260              | 1,906            | 1,938              | 8,610             | 3,849                 | 12,654                  |
| Nova Scotia.....                           | 1,480            | 30,285           | 46,113             | 111,354           | 84,935                | 204,219                 |
| New Brunswick.....                         | 1,061            | 24,181           | 39,583             | 116,491           | 83,488                | 208,367                 |
| Quebec.....                                | 11,223           | 379,449          | 662,838            | 1,601,056         | 1,324,398             | 3,017,049               |
| Ontario.....                               | 11,860           | 537,581          | 1,037,977          | 2,651,698         | 2,136,014             | 4,903,473               |
| Manitoba.....                              | 1,413            | 39,378           | 68,973             | 236,936           | 139,374               | 383,130                 |
| Saskatchewan.....                          | 1,001            | 11,723           | 19,662             | 151,449           | 41,481                | 196,452                 |
| Alberta.....                               | 1,382            | 23,941           | 41,246             | 202,324           | 89,290                | 296,054                 |
| British Columbia.....                      | 3,040            | 83,161           | 167,283            | 453,671           | 388,702               | 858,285                 |
| Yukon and Northwest Territories.....       | 14               | 145              | 313                | 691               | 525                   | 1,344                   |
| <b>Totals.....</b>                         | <b>32,734</b>    | <b>1,131,750</b> | <b>2,085,926</b>   | <b>5,534,280</b>  | <b>4,292,056</b>      | <b>10,081,027</b>       |
| Food and beverages....                     | 8,869            | 167,865          | 276,245            | 1,656,529         | 695,093               | 2,383,976               |
| Tobacco and tobacco products.....          | 91               | 10,880           | 16,235             | 97,121            | 49,221                | 146,793                 |
| Rubber products.....                       | 60               | 23,475           | 46,614             | 82,935            | 110,673               | 196,308                 |
| Leather products.....                      | 792              | 35,724           | 52,629             | 123,894           | 86,646                | 212,430                 |
| Textile products (except clothing)....     | 735              | 73,189           | 114,914            | 287,310           | 212,556               | 509,519                 |
| Clothing.....                              | 3,121            | 110,329          | 166,952            | 311,019           | 300,527               | 614,595                 |
| Wood products.....                         | 9,744            | 120,434          | 186,468            | 398,854           | 365,050               | 771,403                 |
| Paper products.....                        | 502              | 73,445           | 168,632            | 410,457           | 443,374               | 911,239                 |
| Printing, publishing and allied trades.... | 2,458            | 52,096           | 101,612            | 82,585            | 178,667               | 263,632                 |
| Iron and steel products.                   | 2,200            | 162,399          | 334,044            | 451,289           | 580,342               | 1,064,654               |
| Transportation equipment.....              | 562              | 104,348          | 230,899            | 426,573           | 366,152               | 803,611                 |
| Non-ferrous metal products.....            | 503              | 43,344           | 91,047             | 434,517           | 201,163               | 668,074                 |
| Electrical apparatus and supplies.....     | 296              | 52,736           | 103,891            | 162,131           | 200,859               | 366,506                 |
| Non-metallic mineral products.....         | 863              | 26,443           | 50,456             | 66,267            | 115,278               | 201,787                 |
| Products of petroleum and coal.....        | 80               | 12,769           | 28,690             | 257,421           | 84,074                | 361,333                 |
| Chemical products.....                     | 1,046            | 39,237           | 78,994             | 238,310           | 234,057               | 488,307                 |
| Miscellaneous manufacturing industries.... | 812              | 23,037           | 37,606             | 47,067            | 68,323                | 116,859                 |

**Textile Industries.**—In 1948 the demand for all classes of textiles was sufficient to maintain the domestic industries engaged in the manufacture of textiles at an exceptionally high level of production. In addition it was apparently capable of absorbing, without appreciable effect upon domestic production, the British and United States imports which were afforded easier access to Canadian markets by the implementation of the Geneva Agreements.

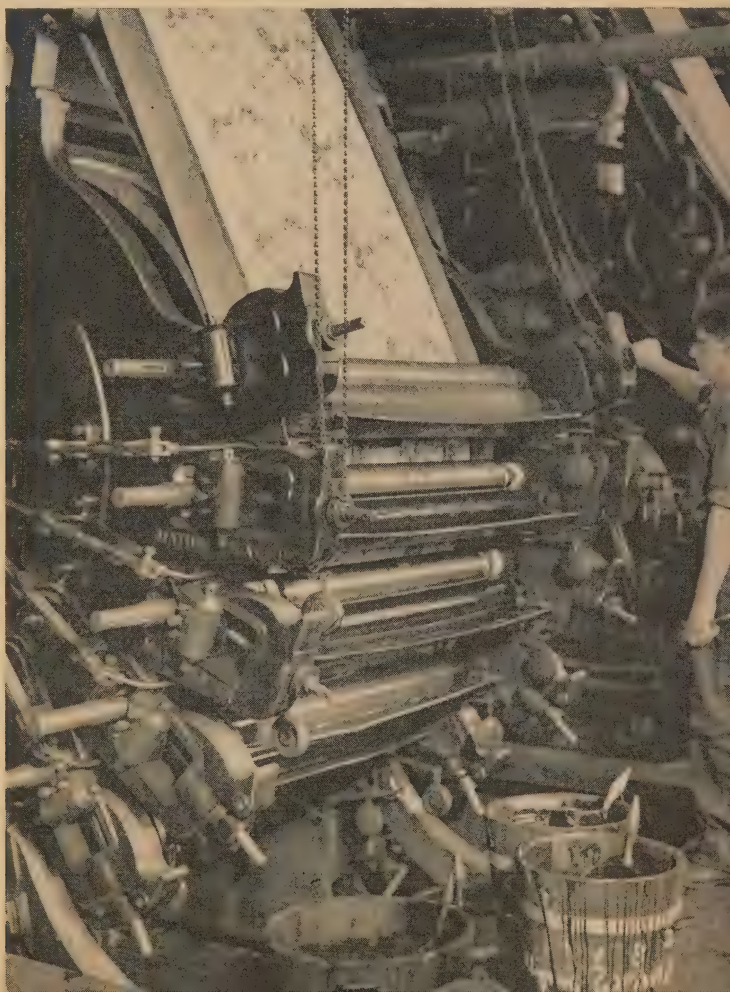
Practically all industries of the textile group participated in the prosperity resulting from the heavy demand. For the group as a whole, both value and volume of production in 1948 were at record levels for the post-war period while employment and wages established all-time highs. Preliminary figures for the year placed gross value of production at \$1,225,000,000 while estimates of employment and earnings showed 184,000 persons in receipt of salaries and wages amounting to \$315,881,000.

Increased activity was manifest in the operations of most member industries of the primary textile group. The woollen and knit goods industries operated at a somewhat higher level in 1948 than in 1947. The demand for

cotton goods remained strong throughout 1948 and resulted in a fairly substantial increase in fabric production in cotton mills as compared with the previous year. Marked expansion of output was reported by the synthetic textiles industry which enjoyed a year of record production. The high level of activity in the secondary textile group of industries reflected the favourable economic and business conditions prevalent throughout the year. Textile manufacturers continued to increase their productive facilities by modernizing or extending existing plants and by building new mills.

**Chemicals and Allied Products.**—The upward climb in production by Canada's chemical industries was maintained in 1948 when, according to preliminary figures, the value at factory prices reached a record (exclusive of shell-filling) of \$554,000,000. Compared with the 1947 official value of \$450,000,000 for the chemicals and allied products group of industries, the apparent advance was \$104,000,000 or 23 p.c., but more than half of this gain was due to a change in statistical procedure which placed the vegetable oils industry in this group for the first time. If this latter industry were also

*Dye-carrying rollers  
turn plain white  
cotton into attrac-  
tively patterned  
drapery material.*





included in the 1947 compilations, the total output value for that year would be \$488,000,000, and the gain in 1948 would be \$66,000,000 or 14 p.c. on a value basis.

Only a small part of the increase, however, can be attributed to expansion in physical output. Prices of chemicals and allied products advanced substantially during 1948, the official index (1926=100) for such commodities being 120.1 in 1948 compared with 107.9 in 1947, an increase of 11 p.c. By allowing for the prices factor, it appears that the gain in physical volume of output of the chemical industries was about 3 p.c. in 1948 compared with 1947. The index (1926=100) of employment in the chemical industries rose to 339.6 in 1948 from 330.3 in 1947, a gain of 3 p.c., and the official index of physical volume of production by firms in this field advanced 4 p.c. to 182.2 (1935-39=100) in 1948 from 175.7 in the previous year. From all of the statistical evidence, it seems safe to conclude that chemical factories turned out about 3 or 4 p.c. more goods in 1948 than in the previous year.

At the close of 1948 the number of employees in the chemical industries was about 43,000, and the weekly payroll was close to \$2,000,000. The average weekly earnings for both salaried workers and wage-earners was \$46.39 and the average hourly earnings of wage-earners only was 95.6 cents.

Higher output values were recorded for all the component industries, the percentage increases from 1947 being as follows: heavy chemicals, 20.6; fertilizers, 7.1; paints, 15.5; soaps, 18.2; coal-tar distillation, 3.1; toilet preparations, 10.1; compressed gases, 14.8; medicinals, 0.3; polishes, 17.5; inks, 12.8; adhesives, 26.1; primary plastics, 21.5; and miscellaneous, 6.0. The vegetable oils industry gained 37.0 p.c.

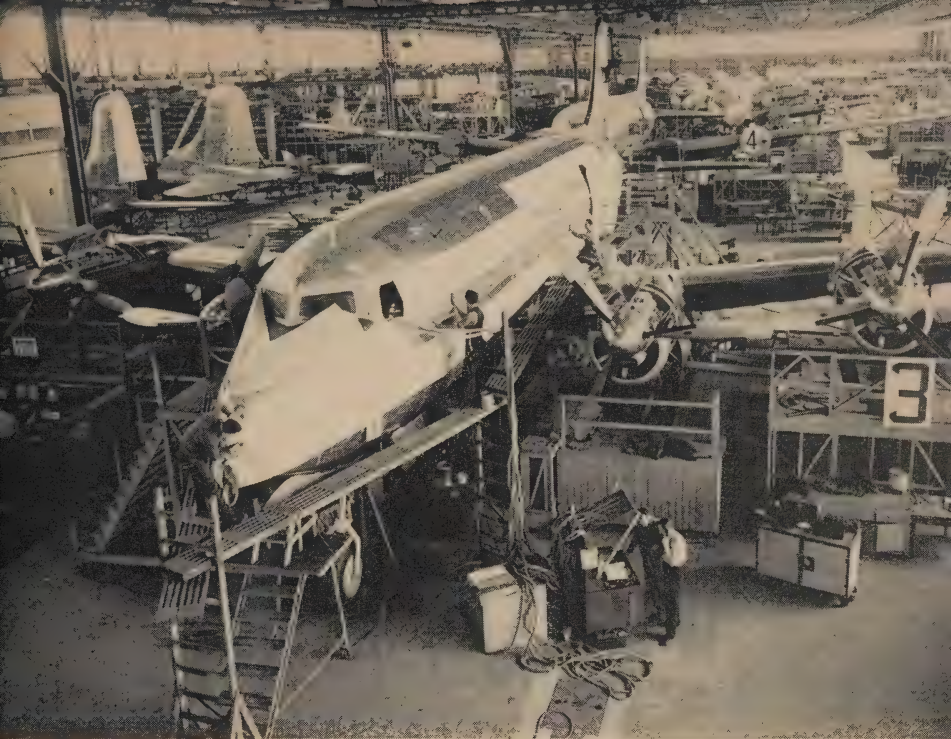
The 535 works in Ontario, with 21,000 employees and production at \$310,000,000, accounted for about 56 p.c. of the total output value and for 47 p.c. of the employees. Quebec, with 331 establishments, 14,000 employees, and production at \$161,000,000, accounted for nearly 30 p.c. of the output of chemicals and allied products. British Columbia had 70 plants and production at \$49,000,000 in 1948.

Imports of chemicals and allied products rose to \$118,000,000 in 1948 from \$113,000,000 in 1947, but exports declined to \$80,000,000 from \$84,000,000.

**Iron and Steel and Their Products.**—A preliminary analysis of the 1948 reports from the manufacturers of iron and steel and their products in Canada indicates a gross production valued at \$2,251,392,204 at factory prices. This output value was 21.4 p.c. above the corresponding figure for 1947 and it was the highest ever recorded for this group of industries.

The values by industries for 1948 were as follows, in millions of dollars: pig iron, ferro-alloys, steel and rolled products \$282.2; iron castings \$121.9; heating and cooking apparatus \$53.7; boilers, tanks and platework \$43.5; farm implements \$146.7; machinery \$228.9; automobiles \$398.0; automobile parts \$138.3; bicycles \$5.3; aircraft \$43.7; shipbuilding \$111.2; railway rolling-stock and parts \$237.4; wire and wire goods \$67.6; sheet-metal products \$152.4; hardware, cutlery and tools, \$87.9; bridge and structural steel work \$65.9; machine shops \$25.3; and miscellaneous iron and steel products \$41.3.

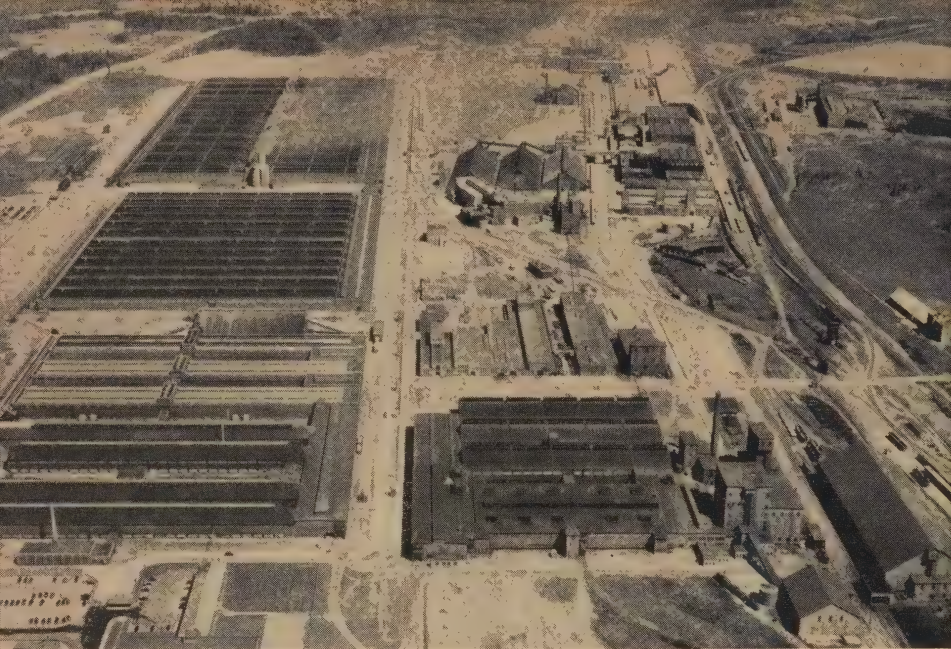
The distribution of this production by provinces was as follows: Ontario \$1,504.4; Quebec \$472.9; Nova Scotia \$74.3; Manitoba \$68.4; British



*Canadair Four's, in production at Cartierville, Que., for the British Overseas Airways Corporation, are being delivered at the rate of one every four working days. It is now possible, flying alternately with B.O.A.C., Trans-Canada Air Lines and Canadian Pacific Air Lines, to circle the world in Canadair aircraft.*







*The world's largest aluminum smelter at Arvida, Que.*

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Columbia \$85.6; New Brunswick \$19.8; Saskatchewan \$3.9; Alberta \$21.4; and Prince Edward Island \$0.5 millions.

In 1948 a total of 2,553 factories operated in this group, employing a monthly average of 269,630 people who were paid \$650,400,000 in salaries and wages. Materials used in manufacturing processes cost \$1,077,600,000 and fuel and electricity \$53,100,000.

Producers of pig iron in Canada had 14 blast furnaces at the end of 1948 which could produce 2,750,000 net tons a year if operated at rated capacity. Actual production of 2,126,000 net tons in 1948 showed an operating rate of about 77 p.c.

There were 33 steel plants in operation during the year. At the end of 1948 these plants had 128 furnaces, including 49 basic open hearth with an annual rated capacity of 3,076,000 tons, 76 electric furnaces rated at 766,000 tons, and three converters at 10,000 tons. There were nine makers of steel ingots with capacity of 3,552,000 net tons per annum. The total annual steel capacity of all plants, including ingots and castings, was 3,852,000 tons at the year end. Steel production increased 10 p.c. to 3,200,000 tons in 1948 from 2,946,000 tons in 1947, the output of steel ingots increasing to 3,087,000 tons from 2,855,000 tons, and steel castings to 113,000 tons from 91,000 tons. In 1948 there were 11 mills occupied chiefly in hot-rolling steel products and three mills making only cold-drawn and cold-rolled shapes. Nine of these mills were in Ontario, two in Nova Scotia, two in Quebec and one in Manitoba. Rolling-mill sales advanced 31 p.c. to \$203,600,000 from \$155,900,000 in 1947.



One-third of the world production of aluminum is made in Canada from bauxite imported from British Guiana. The industry is centred in Quebec.

Pouring aluminum ingots on a continuous casting table.



Unloading bauxite at Port Alfred, Que.



The three major corporations that constitute the core of the industry in Canada—the Steel Company of Canada, Limited; the Algoma Steel Corporation, Limited; and the Dominion Steel and Coal Corporation—are self-contained in that they process iron and steel from the ore through to the semi-finished and finished articles. These articles consist of billets, rails and fastenings, bars, wire rods, structural shapes, sheets and sheet piling, plates, light shapes, wire, fencing, nails, screws, bolts, nuts, forgings, pipe, etc. A new continuous strip mill, the first of its kind in Canada, was put into operation during the year by the Steel Company of Canada, Limited, at Hamilton, Ont.

## Leading Individual Industries

The extraordinary demand for war equipment and food resulted in a rearrangement in the ranking of many industries during the war years. Such industries as miscellaneous chemicals, shipbuilding, iron and steel and aircraft moved up near the top of the list during 1942-44, while pulp and paper, in second place after non-ferrous metal smelting and refining up to 1941, stood in third place in 1942, seventh place in 1943 and fifth place in 1944. Slaughtering and meat packing displaced non-ferrous metal smelting in first place in 1944. In 1946 pulp and paper again moved up to first place, a position it had not occupied since 1933. Slaughtering and meat packing dropped to second place, and non-ferrous metal smelting and refining remained in third place. The ranking of these three industries was the same in 1947. Miscellaneous chemicals which stood in third place in 1944 did not rank among the leading industries in 1946 or 1947.

### Principal Statistics of Fifteen Leading Industries, 1947

| Industry  | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|---|--------------------------|-----------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|   | No.                      | No.       | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Pulp and paper.....   | 115                      | 49,946    | 129,478                  | 295,444                 | 356,085                     | 706,972                       |
| Slaughtering and meat<br>packing.....                                     | 151                      | 21,726    | 44,611                   | 406,694                 | 77,054                      | 486,916                       |
| Non-ferrous metal smelt-<br>ing and refining.....                         | 16                       | 17,449    | 40,768                   | 308,268                 | 115,799                     | 453,034                       |
| Sawmills.....   | 6,481                    | 55,425    | 83,360                   | 208,544                 | 190,515                     | 402,133                       |
| Electrical apparatus and<br>supplies.....                                 | 296                      | 52,736    | 103,891                  | 162,131                 | 200,859                     | 366,506                       |
| Automobiles.....  | 9                        | 23,837    | 58,408                   | 226,845                 | 111,741                     | 340,918                       |
| Flour and feed mills....  | 961                      | 8,285     | 14,832                   | 280,674                 | 41,020                      | 324,152                       |
| Butter and cheese.....  | 2,037                    | 20,757    | 32,406                   | 238,667                 | 66,025                      | 309,728                       |
| Petroleum products....  | 46                       | 7,760     | 17,878                   | 217,516                 | 58,326                      | 288,500                       |
| Primary iron and steel..  | 58                       | 26,933    | 60,285                   | 104,532                 | 92,890                      | 216,275                       |
| Machinery.....  | 322                      | 29,920    | 61,970                   | 74,102                  | 124,577                     | 200,895                       |
| Rubber goods.....   | 60                       | 23,475    | 46,614                   | 82,935                  | 110,673                     | 196,308                       |
| Clothing, women's fac-<br>tory.....                                       | 1,169                    | 30,969    | 50,357                   | 92,713                  | 91,158                      | 184,305                       |
| Clothing, men's factory   | 566                      | 29,817    | 45,487                   | 98,082                  | 84,575                      | 183,166                       |
| Bread and other bakery<br>products.....                                   | 2,942                    | 31,501    | 47,896                   | 80,084                  | 80,476                      | 165,750                       |
| <b>Totals, Fifteen Lead-<br/>ing Industries—</b>                          |                          |           |                          |                         |                             |                               |
| 1947.....   | 15,229                   | 430,536   | 838,241                  | 2,877,231               | 1,801,773                   | 4,825,558                     |
| 1946.....   | 14,394                   | 394,928   | 683,264                  | 2,255,340               | 1,316,999                   | 3,693,331                     |
| <b>Grand Totals, All In-<br/>dustries—</b>                                |                          |           |                          |                         |                             |                               |
| 1947.....   | 32,734                   | 1,131,750 | 2,085,926                | 5,534,280               | 4,292,056                   | 10,081,027                    |
| 1946.....   | 31,249                   | 1,058,156 | 1,740,687                | 4,358,234               | 3,467,004                   | 8,035,692                     |
| Percentages of Fifteen<br>Leading Industries to<br>All Industries, 1947.. | 46.5                     | 38.0      | 40.2                     | 52.0                    | 42.0                        | 47.9                          |

## Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that in Ontario 94 p.c. of the gross manufacturing production of the Province in 1947 was contributed by cities and towns having a gross production of over \$1,000,000 each. In Quebec the percentage was 93 while in the Maritime Provinces and British Columbia, where sawmilling; fish-packing and dairying are leading industries, the proportions were 68 and 60 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

### *Urban Centres with Gross Manufacturing Production of Over \$40,000,000 in 1947*

| Urban Centre             | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost of<br>Fuel and<br>Electricity | Cost of<br>Materials | Gross<br>Value of<br>Production |
|--------------------------|--------------------------|-----------|--------------------------|------------------------------------|----------------------|---------------------------------|
|                          | No.                      | No.       | \$'000                   | \$'000                             | \$'000               | \$'000                          |
| Montreal, Que.....       | 3,950                    | 177,744   | 325,114                  | 17,075                             | 682,056              | 1,298,019                       |
| Toronto, Ont.....        | 3,705                    | 151,532   | 290,354                  | 14,185                             | 648,648              | 1,231,936                       |
| Hamilton, Ont.....       | 512                      | 50,567    | 101,424                  | 14,456                             | 205,430              | 411,817                         |
| Windsor, Ont.....        | 273                      | 32,154    | 74,749                   | 4,553                              | 204,383              | 367,122                         |
| Vancouver, B.C.....      | 1,128                    | 33,162    | 65,450                   | 3,591                              | 175,048              | 314,383                         |
| Winnipeg, Man.....       | 779                      | 27,651    | 47,728                   | 2,828                              | 130,721              | 228,028                         |
| Montreal East, Que....   | 20                       | 3,926     | 8,438                    | 6,463                              | 120,011              | 154,422                         |
| Kitchener, Ont.....      | 123                      | 15,327    | 29,083                   | 1,398                              | 67,003               | 128,467                         |
| Port Colborne, Ont.....  | 20                       | 2,746     | 6,106                    | 2,201                              | 95,983               | 120,273                         |
| London, Ont.....         | 272                      | 15,049    | 27,120                   | 1,461                              | 52,551               | 114,111                         |
| Calgary, Alta.....       | 246                      | 7,790     | 14,785                   | 1,989                              | 77,842               | 111,649                         |
| Sarnia, Ont.....         | 45                       | 6,951     | 15,195                   | 6,261                              | 63,860               | 106,393                         |
| Quebec, Que.....         | 377                      | 13,583    | 20,583                   | 2,721                              | 54,387               | 98,494                          |
| New Toronto, Ont.....    | 31                       | 7,192     | 16,869                   | 1,380                              | 52,403               | 97,817                          |
| Peterborough, Ont.....   | 98                       | 10,257    | 20,626                   | 1,035                              | 57,193               | 92,057                          |
| Edmonton, Alta.....      | 222                      | 7,625     | 14,028                   | 809                                | 61,191               | 88,995                          |
| Brantford, Ont.....      | 144                      | 13,853    | 25,732                   | 1,307                              | 47,334               | 88,766                          |
| Three Rivers, Que.....   | 81                       | 7,320     | 14,359                   | 5,556                              | 38,638               | 79,787                          |
| Welland, Ont.....        | 57                       | 8,355     | 18,470                   | 4,192                              | 32,199               | 76,468                          |
| Sault Ste. Marie, Ont... | 51                       | 6,444     | 15,197                   | 4,876                              | 41,359               | 76,211                          |
| St. Boniface, Man.....   | 62                       | 3,405     | 6,902                    | 588                                | 55,817               | 72,039                          |
| Leaside, Ont.....        | 47                       | 7,343     | 14,904                   | 769                                | 36,748               | 70,056                          |
| St. Catharines, Ont..... | 102                      | 10,216    | 20,570                   | 1,158                              | 32,002               | 67,533                          |
| New Westminster, B.C.    | 100                      | 6,112     | 12,262                   | 797                                | 33,042               | 67,242                          |
| Ottawa, Ont.....         | 211                      | 9,696     | 17,652                   | 1,327                              | 28,904               | 64,603                          |
| Niagara Falls, Ont.....  | 70                       | 6,491     | 13,749                   | 4,363                              | 23,696               | 61,378                          |
| Shawinigan Falls, Que..  | 43                       | 5,120     | 11,298                   | 5,291                              | 22,254               | 56,769                          |
| Saint John, N.B.....     | 118                      | 4,190     | 6,978                    | 1,104                              | 39,517               | 56,062                          |
| Sherbrooke, Que.....     | 102                      | 8,523     | 14,038                   | 896                                | 24,588               | 52,798                          |
| Chatham, Ont.....        | 67                       | 3,258     | 6,342                    | 630                                | 35,271               | 47,877                          |
| Fort William, Ont.....   | 71                       | 3,945     | 8,906                    | 1,973                              | 23,499               | 46,231                          |
| Saskatoon, Sask.....     | 95                       | 2,580     | 4,697                    | 526                                | 33,817               | 45,424                          |
| Cornwall, Ont.....       | 47                       | 6,254     | 11,454                   | 2,238                              | 17,281               | 43,719                          |
| Guelph, Ont.....         | 101                      | 6,131     | 11,186                   | 677                                | 21,494               | 42,572                          |
| Kingston, Ont.....       | 52                       | 5,345     | 10,043                   | 1,003                              | 17,469               | 40,881                          |
| Drummondville, Que...    | 39                       | 8,227     | 12,457                   | 1,309                              | 14,580               | 40,156                          |

### *Employment in Manufactures*

The Dominion Bureau of Statistics conducts monthly surveys of employment, payrolls and man-hours in manufacturing and in the major non-manufacturing industries. The surveys are in the main limited to firms usually employing 15 persons or over. In view of the large-scale operations in many factories, the coverage of total employment in manufacturing in the monthly surveys is particularly high.

Employment in manufacturing generally was maintained at a high level during the first nine months of 1949, the average index being 204.7, slightly exceeding that for the same months of 1948. This was the third successive increase in the average index for the first nine months, but the percentage



increases over the preceding year were progressively smaller. The level of employment in manufacturers in 1949 and immediately preceding years, however, was lower than in the period of intensified activity during the War.

Several factors accounted for the steady increase in employment that has been indicated since 1946. The demand for goods and services was maintained at a high level both in the home and foreign markets, in spite of dollar difficulties abroad which had some effect on the domestic situation in 1949. Earlier shortages of labour and materials lessened in importance as the post-war situation became more normal; a further favourable factor was the establishment of more satisfactory labour-management relations in manufacturing in 1949, the time lost in industrial disputes in the first nine months of that year was only three-fifths of the loss in the same period of 1948.

Except for insignificant declines at Feb. 1 and Aug. 1, the index of employment in manufacturing steadily increased in 1949, rising 3 p.c. from 202·7 on Jan. 1 to 208·8 on Sept. 1, 1949. This gain compared favourably with an advance of 2 p.c. in the index of employment in non-manufacturing industries taken as a unit in a similar comparison. Although the average index for manufacturing in the months Jan. 1 to Sept. 1 in 1949 was one point above that for the same period of 1948, the index at Sept. 1 was 0·7 points below the Sept. 1, 1948, figure.

Employment in the heavy manufacturing industries taken as a unit declined by 2·3 p.c. in the year ended Sept. 1, 1949. There were decreases in all branches of this group with the exception of electrical apparatus and musical instruments. The decline was particularly marked in the iron and steel industries, mainly in plants manufacturing crude, rolled and forged products, machinery (other than vehicles), agricultural implements and steel ship-building and repairing. The employment index for the non-durable manufacturing industries taken as a unit increased by 1 p.c. in the year; this gain was widely distributed among the various industries within this category, the exceptions being the pulp and paper products and rubber groups. The expansion in factories producing beverages, edible plant products, chemicals and allied products and textile products was considerably above average.

At Sept. 1, 1949, the employment indexes for manufacturing in Ontario and the Prairie Provinces were higher than one year earlier. The situation in the remaining areas was not so favourable, there being declines ranging from 1·5 p.c. in Quebec to 2·6 p.c. in British Columbia. In five of the eight leading cities—Montreal, Toronto, Hamilton, Windsor and Winnipeg—the level of employment at Sept. 1, 1949, was higher than at Sept. 1, 1948.

The proportion of women employed in manufacturing establishments increased from 222 per 1,000 employees of both sexes at Sept. 1, 1948, to 228 at Sept. 1, 1949. This change resulted from a relatively greater decline in the number of men (0·4 p.c.) on the staffs of reporting establishments than in the number of their female employees (0·2 p.c.).

As in earlier years, the increase in the average index of employment in manufacturing in the first nine months of 1949 was relatively smaller than that noted in the average index of payrolls in the same period. This was partly due to the effect of continued upward adjustments in the wage rates and increases in cost-of-living bonuses, but was also associated to some extent with stabilizing employment. In the nine months ended Sept. 1, 1949, the index of employment increased by 3 p.c. and the index of payrolls by 7·8 p.c.

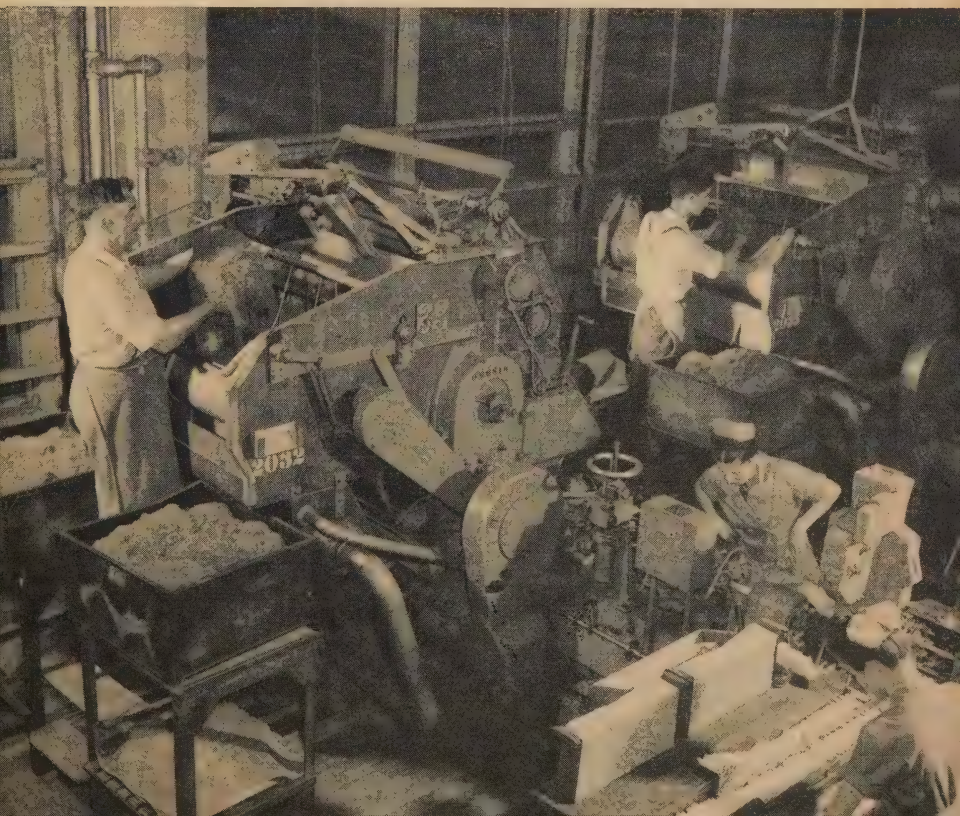
At Sept. 1, 1949, the average weekly earnings of persons employed in manufacturing stood at \$44.26, compared with \$41.46 twelve months earlier. The time worked by hourly rated employees averaged 42.4 hours in the week of Sept. 1, 1949, compared with 41.7 hours and 42.3 hours at the same dates in 1948 and 1947, respectively: hourly earnings averaged 82.2 cents at Sept. 1, 1947, 93.4 cents at Sept. 1, 1948, and 98.4 cents at Sept. 1, 1949.

### *Monthly Indexes of Employment in Manufactures, 1944-49*

(1926 = 100)

| Month        | 1944  | 1945  | 1946  | 1947  | 1948  | 1949  |
|--------------|-------|-------|-------|-------|-------|-------|
| Jan. 1.....  | 226.4 | 212.7 | 179.9 | 190.6 | 199.9 | 202.7 |
| Feb. 1.....  | 227.3 | 215.0 | 182.8 | 193.9 | 200.7 | 202.6 |
| Mar. 1.....  | 226.5 | 214.3 | 182.6 | 194.5 | 202.6 | 203.0 |
| April 1..... | 225.5 | 212.9 | 184.9 | 195.2 | 202.0 | 203.0 |
| May 1.....   | 223.2 | 210.6 | 186.2 | 195.8 | 201.8 | 203.3 |
| June 1.....  | 223.1 | 209.0 | 184.7 | 197.6 | 203.6 | 205.1 |
| July 1.....  | 225.8 | 207.2 | 187.2 | 200.6 | 207.2 | 207.4 |
| Aug. 1.....  | 225.0 | 204.1 | 184.2 | 202.5 | 206.5 | 206.4 |
| Sept. 1..... | 226.2 | 198.6 | 187.2 | 203.3 | 209.5 | 209.2 |
| Oct. 1.....  | 223.7 | 188.3 | 188.4 | 203.6 | 210.0 | 208.6 |
| Nov. 1.....  | 221.3 | 186.3 | 192.8 | 205.1 | 208.3 | 206.5 |
| Dec. 1.....  | 221.3 | 186.3 | 194.2 | 205.1 | 207.9 | 204.2 |

*Tobacco is fed into the hopper of a "making" machine in a Montreal factory. The operator in the foreground feeds completed cigarettes into a packaging machine.*









# ★ Construction

The construction industry had not recovered from the depressed conditions of the early 1930's when war production began to drain off materials and labour from peacetime projects. This was particularly evident in residential construction. Increased personal incomes allowed many families to expand into separate or larger living quarters while at the same time marriage rates were high. Since the end of the War considerable progress has been made to alleviate the shortage of housing and beginning in 1947, for the first time in about ten years, the number of new dwelling units exceeded moderately the net increase in the number of households.

## *Government Assistance*

The Federal Government has administered legislation designed to assist in the financing and improvement of housing in Canada since 1935. There are four Acts of Parliament in effect at the present time under which it is possible to obtain help from the Federal Government for the purpose of building houses: the National Housing Act, 1944; the Farm Improvement Loans Act; the Farm Loan Act, 1927; and the Veterans' Land Act. The first is outlined below while the last is dealt with under Veterans Affairs, p. 76. The other two Acts provide direct and indirect financial assistance to farmers for a wide range of purposes, of which housing represents only a small part. Since 1945, the Government has engaged in direct housing construction through Wartime Housing, Limited, and through the Department of National Defence since 1946.

**Central Mortgage and Housing Corporation.**—To provide co-ordination in the housing field, the Central Mortgage and Housing Corporation was incorporated by an Act passed in December, 1945. Its purpose and functions are to administer the National Housing Act, 1944, and earlier housing legislation and to provide facilities for the rediscounting of mortgages by lending institutions. Since March, 1947, the Corporation has administered a taxation incentive plan for rental housing construction and, in 1948, it took over the functions of Wartime Housing, Limited. Most of the housing activities of the Federal Government are now being administered by the Corporation.

## *National Housing Act, 1944*

The National Housing Act, 1944, was designed to stimulate the construction of housing for both owner-occupancy and rental. It offers various forms of assistance as summarized below.

**Joint Loans.**—Loans are made jointly by the Central Mortgage and Housing Corporation and approved lending institutions to prospective home owners and to builders of houses for sale to occupants or for rental. Houses must be constructed according to sound, prescribed standards. Loans for home ownership units are based on the following percentages of lending values: 95 p.c. of the first \$3,000, 85 p.c. of the next \$3,000, and 70 p.c. of the remainder. For rental housing, the maximum loan is limited to 80 p.c. of the total lending value of each unit. The maximum joint loan on any

dwelling unit is \$8,500. Interest payable by the borrower is  $4\frac{1}{2}$  p.c. per annum. The term of the loan may be up to 30 years. Payments of principal, interest and taxes are made in monthly instalments comparable to rent. Twenty-five per cent of the money borrowed is advanced to the lending institution by the Corporation.

Joint loans are also available for co-operative housing, for farm housing, and under the Integrated Housing Plan. For farm housing, the amounts of loan are determined on a different basis than for urban housing. Under the Integrated Housing Plan, builders may obtain joint loans for the erection of groups of houses for sale primarily to veterans at an agreed maximum price; the Corporation is obligated to purchase any houses unsold after a period of one year following completion.

In the first six months of 1949, a total of 10,107 units were approved for joint loans, involving \$53,600,000 or an average loan per unit of about \$5,300. These figures compare with 8,999 units, involving \$46,300,000, or an average loan per unit of nearly \$5,150 for the corresponding period of 1948.

**Direct Loans.**—The Act provides loans by the Central Mortgage and Housing Corporation to limited dividend companies for the construction of low-rental housing. Such loans may be for 90 p.c. of the lending value of the project at an interest rate of 3 p.c. per annum. The period of amortization may be extended to 50 years.

The Corporation is authorized to make direct advances to mining, lumbering and fishing companies in outlying areas, to assist in providing homes for their employees. Loans are made to, or are guaranteed by, the company concerned; the term of the loan may be as long as 15 years, the rate of interest is 4 p.c., and the company may not earn on its investment in the housing project more than 4 p.c. annually. The maximum loan is 80 p.c. of the lending value. In the case of rental insurance projects, the maximum loan is 85 p.c. of lending value. The Act also provides that the Corporation may make direct loans in other cases where a joint loan cannot be obtained.

Direct loans in the first six months of 1949 were approved for 2,868 units involving \$16,300,000. In the corresponding period of 1948, direct loans were approved for 89 units involving \$468,000.

**Guarantees.**—Loans guaranteed by the Central Mortgage and Housing Corporation may be made by banks or approved instalment credit agencies for home improvement and home extension purposes. These loans are intended to assist home owners to finance additional dwelling units in existing homes. They bear interest at 5 p.c. The section dealing with home improvement loans has not been proclaimed owing to the shortage of building materials.

Life insurance companies under federal jurisdiction are authorized to invest up to 5 p.c. of their Canadian assets in a low- or moderate-rental housing project, and are guaranteed a net return of  $2\frac{1}{2}$  p.c. per annum on such investments. Guarantees to lending institutions may be made by the Corporation ensuring a return of  $2\frac{1}{2}$  p.c. per annum on approved investments in the purchase and improvement of land to be used for residential development. On payment of an annual premium, the Corporation may guarantee a minimum rental income for approved projects covering periods of not more than 30 years.

*Joists, factory-cut and numbered, are laid for the floor of a house under construction at a suburban housing project.*



**Direct Construction.**—Wartime Housing, Limited, was a Crown company established in 1941 to build houses for war workers. In 1947, the supervision of the company—at this time building rental housing for veterans—was taken over by the Central Mortgage and Housing Corporation. Then in June, 1948, the charter of Wartime Housing, Limited, was surrendered and the company's assets transferred to Central Mortgage and Housing Corporation which was empowered to own housing projects and to engage in direct housing construction operations on its own account. In the first six months of 1949, more than 5,000 units for rental to veterans were completed. In addition, the Corporation in 1949 conducted the construction operations of the Department of National Defence in connection with that Department's program of providing married quarters for its permanent personnel.

**Research and Community Planning.**—The research plans cover the fields of: economic and statistical inquiries; technical research in materials, equipment, standards, etc.; and design. In 1947, the National Research Council formed a Division of Building Research to undertake the major portion of actual technical and laboratory research work regarding building methods and materials. Assistance has been provided, also, to university research in both the technical and social aspects of housing. The Corporation is authorized to make grants-in-aid to municipalities in clearing and preparing land for low- or moderate-rental housing projects.

**Land Assembly.**—Because of the shortage of serviced land in almost every Canadian municipality, approved lending institutions are now enabled under the National Housing Act, but only with approval of the Central Mortgage and Housing Corporation, to purchase raw land to be used for housing development and to install the necessary services such as roads, sewers and water. The price of the land to the builder or home owner will be fixed to assure that the home owner receives full benefit of the economies effected by this method of land assembly.



## Construction Statistics

**Housing.**—It is estimated that 81,243 dwelling units were completed during 1948 as compared with 79,359 in 1947. This brings completions during the first four post-war years to about 276,000 units. It is estimated that during the first eight months of 1949 an additional 55,435 dwelling units were completed and, at Aug. 31, there were 58,677 units under construction.

### *Dwelling Units Built, by Types, 1945-49*

| Type                      | 1945          | 1946          | 1947          | 1948          | 1949 <sup>1</sup> |
|---------------------------|---------------|---------------|---------------|---------------|-------------------|
|                           | No.           | No.           | No.           | No.           | No.               |
| New Construction—         |               |               |               |               |                   |
| One-family detached.....  | 32,681        | 50,457        | 58,883        | 61,787        | 42,692            |
| Two-family detached.....  | 3,694         | 4,206         | 5,314         | 4,560         | 4,800             |
| Row or terrace.....       | 235           | 510           | 608           | 1,607         | 365               |
| Apartment or flat.....    | 4,009         | 2,898         | 7,460         | 7,836         | 7,333             |
| Other.....                | 1,166         | 2,504         | 81            | 307           | 245               |
| Totals, New Construction. | 41,785        | 60,575        | 72,346        | 76,097        | 55,435            |
| Conversions.....          | 5,982         | 6,740         | 7,013         | 5,146         | ..                |
| <b>Grand Totals.....</b>  | <b>47,767</b> | <b>67,315</b> | <b>79,359</b> | <b>81,243</b> | <b>..</b>         |

<sup>1</sup> First eight months.

Over 45 p.c. of the dwelling units completed in 1948 were in the 17 metropolitan areas of 40,000 population or over; these areas contain about 36 p.c. of the population of Canada.

### *Dwelling Units Built in Metropolitan Areas of 40,000 Population or Over, 1945-49*

(Exclusive of conversions)

| Area               | 1945          | 1946          | 1947          | 1948          | 1949 <sup>1</sup> |
|--------------------|---------------|---------------|---------------|---------------|-------------------|
|                    | No.           | No.           | No.           | No.           | No.               |
| Calgary.....       | 558           | 1,136         | 1,306         | 1,375         | 1,318             |
| Edmonton.....      | 418           | 832           | 1,291         | 1,784         | 1,191             |
| Halifax.....       | 160           | 588           | 371           | 471           | 608               |
| Hamilton.....      | 510           | 640           | 1,141         | 1,317         | 1,150             |
| London.....        | 271           | 625           | 799           | 732           | 796               |
| Montreal.....      | 4,338         | 3,571         | 6,183         | 8,814         | 9,727             |
| Ottawa.....        | 1,226         | 1,447         | 1,194         | 1,454         | 752               |
| Quebec.....        | 869           | 950           | 834           | 1,082         | 714               |
| Regina.....        | 222           | 405           | 518           | 424           | 237               |
| Saint John.....    | 144           | 242           | 457           | 134           | 215               |
| Saskatoon.....     | 276           | 682           | 750           | 773           | 160               |
| Three Rivers.....  | 228           | 214           | 157           | 533           | 302               |
| Toronto.....       | 3,233         | 4,204         | 3,836         | 4,143         | 4,166             |
| Vancouver.....     | 2,581         | 2,968         | 3,750         | 6,758         | 3,775             |
| Victoria.....      | 496           | 787           | 829           | 1,353         | 651               |
| Windsor.....       | 694           | 716           | 839           | 806           | 746               |
| Winnipeg.....      | 1,022         | 1,966         | 3,242         | 2,881         | 2,073             |
| <b>Totals.....</b> | <b>17,246</b> | <b>21,973</b> | <b>27,497</b> | <b>34,834</b> | <b>28,581</b>     |

<sup>1</sup> First eight months.

**All Construction.**—In the presentation of the 1948 statistics on construction, 1941 is used as the base year from which long-term trends are measured. The year 1941 was chosen since at that time factors tending to

prohibit construction for other than war purposes and the influence of accelerated construction fostered by Canada's war effort were best balanced.

Constant changes in the numbers of firms engaged in construction activities make it difficult to maintain complete coverage of the industry, though an increasing number of reports have been received in recent years from more important segments of the industry. As a result of the coverage difficulties, the figures in the following tables possibly contain some downward bias, but such elements of error are not serious enough to adulterate to any great extent the year-to-year trends. More complete coverage will be effected subsequently by the introduction of new sampling methods and the results will be more representative of the industry.

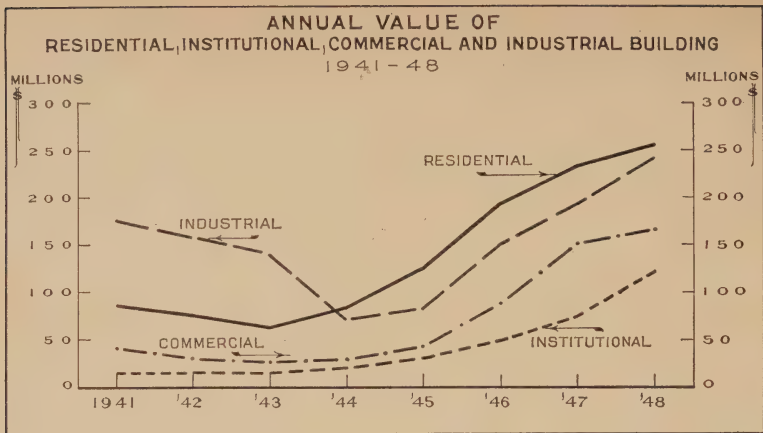
Space does not permit of a detailed analysis of the following tables, but some of the highlights are singled out for examination:—

- Building showed an increase of 30 p.c. over 1947.
- Ontario continued to lead in construction, accounting for 41 p.c. of the total for Canada.
- The number of persons employed continued upward in 1948—an increase of 34,000 over 1947.
- The cost of labour and materials combined amounted to \$1,400,000,000.

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*Steel frame of the first welded-steel structure at Toronto, the new 600-bed Hospital for Sick Children, which is scheduled for completion in 1950.*





*Values of Construction, by Types, 1941, 1947 and 1948*

| Type                                       | 1941    | 1947      | 1948      | P.C. Change |         |
|--|---------|-----------|-----------|-------------|---------|
|  |         |           |           | 1941-47     | 1947-48 |
| Building—                                  | \$'000  | \$'000    | \$'000    |             |         |
| Residential.....                           | 87,586  | 233,304   | 255,756   | +192.0      | + 9.6   |
| Institutional.....                         | 15,175  | 73,362    | 121,421   | +700.1      | + 65.5  |
| Commercial.....                            | 41,157  | 151,130   | 166,073   | +303.5      | + 9.9   |
| Industrial.....                            | 177,698 | 193,053   | 242,832   | + 36.7      | + 25.8  |
| Other.....                                 | 52,875  | 7,534     | 39,540    | - 25.2      | +424.8  |
| Work by building trades <sup>1</sup> ..... | 64,604  | 180,488   | 262,366   | +306.1      | + 45.4  |
| Totals, Building.....                      | 439,095 | 838,871   | 1,087,988 | +147.8      | + 29.7  |
| Engineering—                               |         |           |           |             |         |
| Roads, bridges, etc.....                   | 74,715  | 219,000   | 258,486   | +246.0      | + 18.0  |
| Marine construction.....                   | 31,621  | 70,436    | 108,104   | +241.9      | + 53.5  |
| Electric stations, etc.....                | 30,553  | 105,129   | 175,968   | +475.9      | + 67.4  |
| Railway, telephone, telegraph..            | 2,084   | 6,501     | 9,225     | +342.7      | + 41.9  |
| Other engineering.....                     | 61,683  | 16,599    | 25,790    | - 58.2      | + 55.4  |
| Totals, Engineering..                      | 200,656 | 417,665   | 577,573   | +187.8      | + 38.3  |
| Grand Totals.....                          | 639,751 | 1,256,536 | 1,665,561 | +160.3      | + 32.6  |

<sup>1</sup> Building of all types by independent tradesmen: not classified as to type of building concerned.

*Value of Construction, by Provinces, 1941-48*

| Province         | 1941           | 1942           | 1943           | 1944           | 1945           | 1946           | 1947             | 1948             |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|
|                  | \$'000         | \$'000         | \$'000         | \$'000         | \$'000         | \$'000         | \$'000           | \$'000           |
| P.E.I.....       | 1,939          | 1,468          | 1,646          | 1,962          | 1,877          | 2,382          | 3,071            | 5,424            |
| N.S.....         | 33,153         | 54,259         | 40,667         | 29,833         | 29,325         | 40,858         | 52,897           | 73,507           |
| N.B.....         | 18,551         | 14,195         | 12,007         | 13,657         | 14,374         | 27,761         | 42,675           | 51,590           |
| Que.....         | 181,860        | 205,401        | 159,875        | 131,064        | 150,166        | 225,582        | 338,515          | 421,476          |
| Ont.....         | 261,239        | 217,829        | 216,715        | 165,395        | 216,545        | 347,617        | 501,651          | 682,466          |
| Man.....         | 29,610         | 22,092         | 20,191         | 19,357         | 28,383         | 43,463         | 61,254           | 82,230           |
| Sask.....        | 20,668         | 15,603         | 11,128         | 12,423         | 17,482         | 29,277         | 40,009           | 49,380           |
| Alta.....        | 35,296         | 33,390         | 25,142         | 27,569         | 32,014         | 51,573         | 67,651           | 109,448          |
| B.C.....         | 57,435         | 71,413         | 85,056         | 48,578         | 53,414         | 100,148        | 148,813          | 190,040          |
| <b>Canada ..</b> | <b>639,751</b> | <b>635,650</b> | <b>572,427</b> | <b>449,838</b> | <b>543,580</b> | <b>868,661</b> | <b>1,256,536</b> | <b>1,665,561</b> |

<sup>1</sup> Includes Yukon and the Northwest Territories.



## Operating Statistics of the Construction Industry, 1941-48

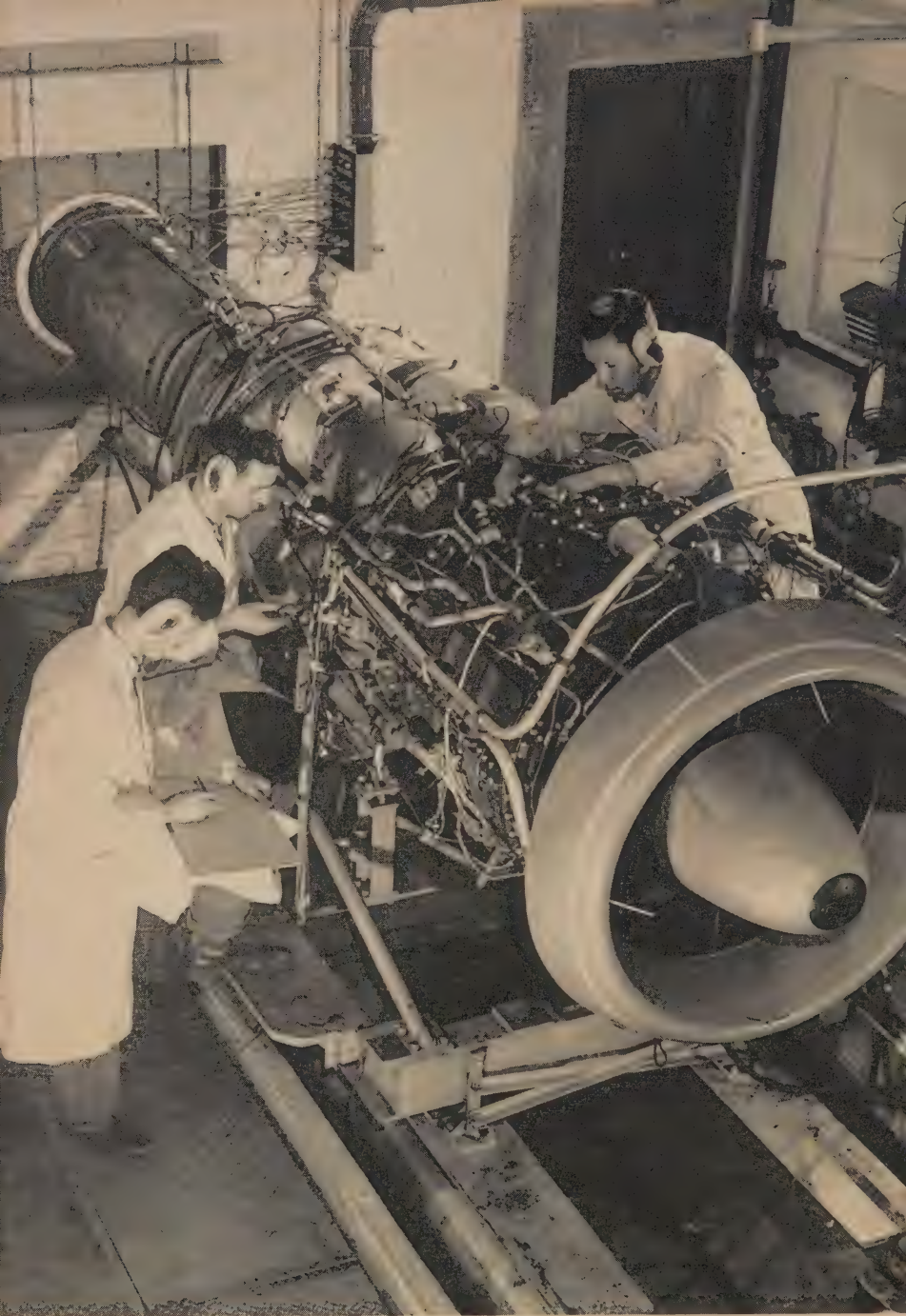
| Year      | Reports Received | Persons Employed | Salaries and Wages Paid |                    | Cost of Materials Used |                    | Total Value of Work Performed |
|-----------|------------------|------------------|-------------------------|--------------------|------------------------|--------------------|-------------------------------|
|           |                  |                  | Amount                  | P.C. of Total Work | Amount                 | P.C. of Total Work |                               |
|           | '000             | '000             | \$'000                  |                    | \$'000                 |                    | \$'000                        |
| 1941..... | 15               | 176              | 235,632                 | 36.8               | 370,189                | 57.9               | 639,751                       |
| 1942..... | 14               | 175              | 262,043                 | 41.2               | 324,732                | 51.1               | 635,650                       |
| 1943..... | 13               | 155              | 246,836                 | 43.1               | 278,888                | 48.7               | 572,427                       |
| 1944..... | 16               | 124              | 197,704                 | 44.0               | 200,801                | 44.6               | 449,838                       |
| 1945..... | 19               | 147              | 233,991                 | 43.0               | 275,622                | 50.7               | 543,580                       |
| 1946..... | 24               | 199              | 344,893                 | 39.7               | 459,966                | 53.0               | 868,661                       |
| 1947..... | 27               | 250              | 482,907                 | 38.4               | 654,996                | 52.1               | 1,256,536                     |
| 1948..... | 22               | 284              | 605,496                 | 36.4               | 835,917                | 50.2               | 1,665,561                     |

**Building Permits.**—Based on reports received from 507 municipalities, building permits issued during 1948 represented proposed building valued at \$647,408,000, divided by type as follows: residential, \$379,913,000; institutional, \$76,660,000; commercial, \$135,017,000; industrial, \$51,210,000; and other, \$4,608,000. These figures are not on a comparable basis with those issued for previous years; the former series was based on reports from only 204 municipalities.

**Railways.**—The expenditures of railways, steam and electric, on road, maintenance of way and structures and equipment are not included in the figures for the construction industries given above and are therefore summarized here. For steam railways expenditures for these purposes in 1947 amounted to \$247,231,693 compared with \$238,398,950 in 1946. For electric railways, the net in 1947 was \$9,005,013 as against \$11,257,268 in 1946.

*The land surveyor plays a vitally important part in defining properties to be acquired for large hydro developments.*





*Design and construction of jet engines and aircraft, carried on at Malton, Ont., require the services of highly skilled technicians. The resources of this plant, equipped with the most up-to-date research, design and production facilities and employing more than 3,000 people, are directed towards the steady advance of jet engineering.*

# Labour

**M**ODERN labour is protected by law and the organizations that labour has itself set up or called into existence. Both the Parliament of Canada and the Provincial Legislatures have enacted laws for the protection of workers in their places of employment. Co-operation between the Federal Government and the Provinces before and during the War has resulted in fairly uniform principles being applied throughout Canada for the settlement of industrial disputes.

The Government of Canada provides unemployment insurance through a nation-wide system of employment offices which are concerned with both the payment of claims and the placing of workers in jobs. The Government regulates working conditions of its own employees and provides compensation for them in case of accident during employment. Observance is required of specified wage-and-hour conditions by contractors for federal public works and equipment and supplies. Federal laws govern employment on railways and in the mercantile marine, permit peaceful picketing, and prohibit employment on Sunday except under certain conditions.

In most provinces there are laws for the inspection of mines, factories, shops, and other work places and for the regulation of wages, hours of work, employment of women and children, apprenticeship and workmen's compensation. Laws have also been enacted to protect freedom of association, to require employers to bargain with the representatives of employees or with trade unions and to prohibit any strike or lockout until after an inquiry. In Newfoundland there are laws governing hours of work in shops, hours for women and children in shops, minimum wages and the protection of children.

**Labour Organization.**—The majority of local trade unions in Canada are branches of international organizations, either craft or industrial, with headquarters in the United States. Broadly speaking the unions are of four types: (1) international unions with active branches existing in Canada, but headquarters in the United States; (2) national unions that are purely Canadian in scope; (3) local unions, directly chartered by central labour federations and congresses; and (4) wholly independent organizations.

At the end of 1948 there were 977,594 union members reported to the Department of Labour, an increase of 65,470 over the 1947 figures. The number of local branches increased from 4,956 in 1947 to 5,114 in 1948. Reports showed 439,029 members of unions affiliated with the Trades and Labour Congress, 338,627 with the Canadian Congress of Labour and 93,370 with the Canadian and Catholic Confederation of Labour at the end of 1948.

**Unemployment in Trade Unions.**—Reports from trade unions indicated slight increases in the percentage of unemployment among their members during 1948. The average for that year was 2·2 p.c. and that for 1947 1·3 p.c. At the end of June, 1949, reports from 2,504 local branches of labour organizations, with a total membership of 489,045, showed that



8,920 or 1.8 p.c. were unemployed. At June 30, 1948, the percentage was 1.3 but increased to well over 3 p.c. by the end of the year. The highest level of unemployment on record indicated by union returns was at the end of 1932 and at the beginning of 1933 when the figure was over 25 p.c.: the period of lowest unemployment was the summer of 1944 when the percentage was 0.3.

### *Collective Bargaining and Conciliation Legislation*

The Industrial Relations and Disputes Investigation Act came into effect on Sept. 1, 1948. The new legislation replaced both the Industrial Disputes Investigation Act which had been in force from 1907 to March, 1944, and the Wartime Labour Relations Regulations, Order in Council P.C. 1003, which had succeeded the Industrial Disputes Investigation Act in 1944. By proclamation the Industrial Relations and Disputes Investigation Act became effective in the Province of Newfoundland on Sept. 19, 1949.

The new Act applies only to industries within federal jurisdiction, i.e., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries, both interprovincial and international aerodromes and air transportation, radio broadcasting stations, and works declared to be for the general advantage of Canada. However, the Act provides that provincial authorities may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements for the administration of such legislation by the federal authorities.

The Minister of Labour and the Canada Labour Relations Board jointly administer the provisions of the Act. The Minister administers those provisions providing for the appointment of Conciliation Officers, Conciliation Boards, Industrial Inquiry Commissions, for consent to prosecute, and for the making of complaints that the Act has been violated or that a party has failed to bargain in good faith. The Canada Labour Relations Board, which is composed of four representatives each of organized labour and management and a chairman and vice-chairman, administers those portions of the Act that concern the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints that a party has failed to bargain collectively.

The legislation also provides for the right of free association of employees and employers, for the safeguarding of that right by prohibiting unfair labour practices, for compulsory collective bargaining between trade unions and employees upon notice following certification or upon notice to negotiate the renewal of an agreement. Where the parties are unable to reach agreement by direct negotiations, conciliation services by officers and boards may be provided. Strikes and lockouts and the taking of strike votes are prohibited until the legislative procedures of negotiation and conciliation laid down in the Act have either been satisfied or the Minister has refused to appoint a Conciliation Board. Where a Board has been appointed, a strike or lockout may take place seven days after the report of the Board has been given to the Minister of Labour. Where the Minister neglects to appoint a Board, a strike or lockout may take place after 15 days or earlier if the Minister gives notice of refusal to appoint a Board. Enforcement of the Act is by way of court prosecution which can only be instituted by consent of the Minister.

Safety procedures in the mines have become standardized. The card-tag board is a record of the location of the miner's shift. Each man carries his own brass tag while underground and is checked off by the shift boss as he returns to the surface. All men not actually engaged are on the surface during blasting operations.



### *Strikes and Lockouts*

In terms of the number of strikes and the number of workers involved, industrial relations in 1949 showed an improvement as compared with the two preceding years. However, there was a slight increase in time-loss for the first eight months of 1949 as compared with the same period in 1948.

The number of strikes and lockouts, the number of workers involved and the time-loss in man-working days has declined since the peak year of 1946, when 4,500,000 days were lost; in 1948, 886,000 days were lost. During the first eight months of 1949 there were 87 strikes and lockouts, with 29,427 workers involved and a time-loss of 765,086 days; in the first eight months of 1948 there were 108 strikes, involving 29,718 workers and a time-loss of 646,671 days; and in the first eight months of 1947 there were 157 strikes, with 66,798 workers involved and a time-loss of 1,581,319 days.

Based on the number of non-agricultural wage and salary workers in Canada, the time-loss in the first eight months of 1949 was 0.12 p.c. and the estimated working time lost for the same period of 1948 was 0.10 p.c. A strike of asbestos miners and mill workers in various centres of Quebec was responsible for 64 p.c. of the total time-loss in the 1949 period.

### *Employment in 1949*

Industrial employment in Canada in the first nine months of 1949 was the highest on record for that time of year. The improvement over the same period of 1948, however, was slight; the index (based on the 1926 average as 100) in the first three-quarters of 1949 averaged 194.0, compared with 193.1 in 1948. In 1947, the average index for the same period was 184.7, and in 1946, 170.3; during the War, the peak figure for those months was 182.6 recorded in 1944.

Although employment generally increased during the first nine months of 1949, the index at Sept. 1 was 0.4 p.c. lower than at the same date of 1948; it was nevertheless 4 p.c. higher than at Sept. 1, 1947. During the year under review, much of the backlog of consumer demand for heavy manufactured goods had been met, while shortages of dollars in many countries had an adverse effect on export markets. Industrial disputes occasioned a greater loss in working days than in 1948. Shortages of electric power and extreme weather were also retarding conditions in the prairies and British Columbia during the earlier months of 1949; on the other hand, more plentiful supplies of materials and greater availability of skilled workers were favourable factors.

While the general index of employment for the first nine months of 1949 rose only by 0.5 p.c. as compared with the same period of 1948, the index of aggregate weekly payrolls was 9 p.c. higher. The increases in the payrolls in 1948 and 1947 over the preceding years had been proportionately greater, due to more rapidly expanding employment and widely distributed wage adjustments, associated with rising prices. The increase in payrolls during the first nine months of 1949 was considerably less than in the same months of immediately preceding years, the advance amounting to 8 p.c., compared with 17 p.c. in 1948 and 20 p.c. in 1947. The average weekly earnings of salaried employees and wage-earners on the staffs of leading establishments in the eight leading industries at Sept. 1, 1949, were \$43.27, compared with \$40.86 at Sept. 1, 1948, and \$36.76 at Sept. 1, 1947.

As compared with one year earlier, employment gains were reported at Sept. 1, 1949, in Ontario, Manitoba and Alberta. The greatest increase was that of 5.0 p.c. in Alberta, where the most recent index was the highest on record. Improvement over Sept. 1, 1948, was reported in all the major industries in that Province. The employment index in Manitoba rose by 2.8 p.c. in the 12 months, to reach the maximum on record. In Ontario, considerable declines in employment in logging at Sept. 1, 1949, as compared with one year earlier were rather more than offset by increases in other industries; the general index advanced by 1.2 p.c. Employment in the larger establishments in Prince Edward Island showed little general change in the 12 months, in which there were fractional declines in the employment indexes for Saskatchewan and British Columbia. There were reductions in the employment indexes for Quebec, New Brunswick and Nova Scotia which exceeded the decline of 0.4 p.c. in the index for Canada as a whole. The figure for Quebec fell from 205.1 at Sept. 1, 1948, to 199.2 at Sept. 1, 1949; although there were gains in employment in a number of major industries, these were not sufficiently large to offset the declines reported in manufacturing, logging, transportation and construction. The general index for Nova Scotia dropped by 5.7 p.c. from Sept. 1, 1948, to 187.5 at Sept. 1, 1949, reductions in employment being reported by firms engaged in manufacturing, mining and construction. Largely a result of declines in manufacturing, logging and transportation, the index for the eight leading industries in New Brunswick showed a reduction of 3.7 p.c. in the 12-month comparison. With the exception of New Brunswick, the general index number of employment for each of the nine other provinces was higher at Sept. 1, 1949, than at the opening of the year.

The provincial indexes of aggregate payrolls at Sept. 1, 1949, were higher than at the same date in 1948 except in Prince Edward Island and Nova Scotia. The greatest percentage proportional gain was reported in Alberta. With further wage adjustments, increases in cost-of-living bonuses and a general

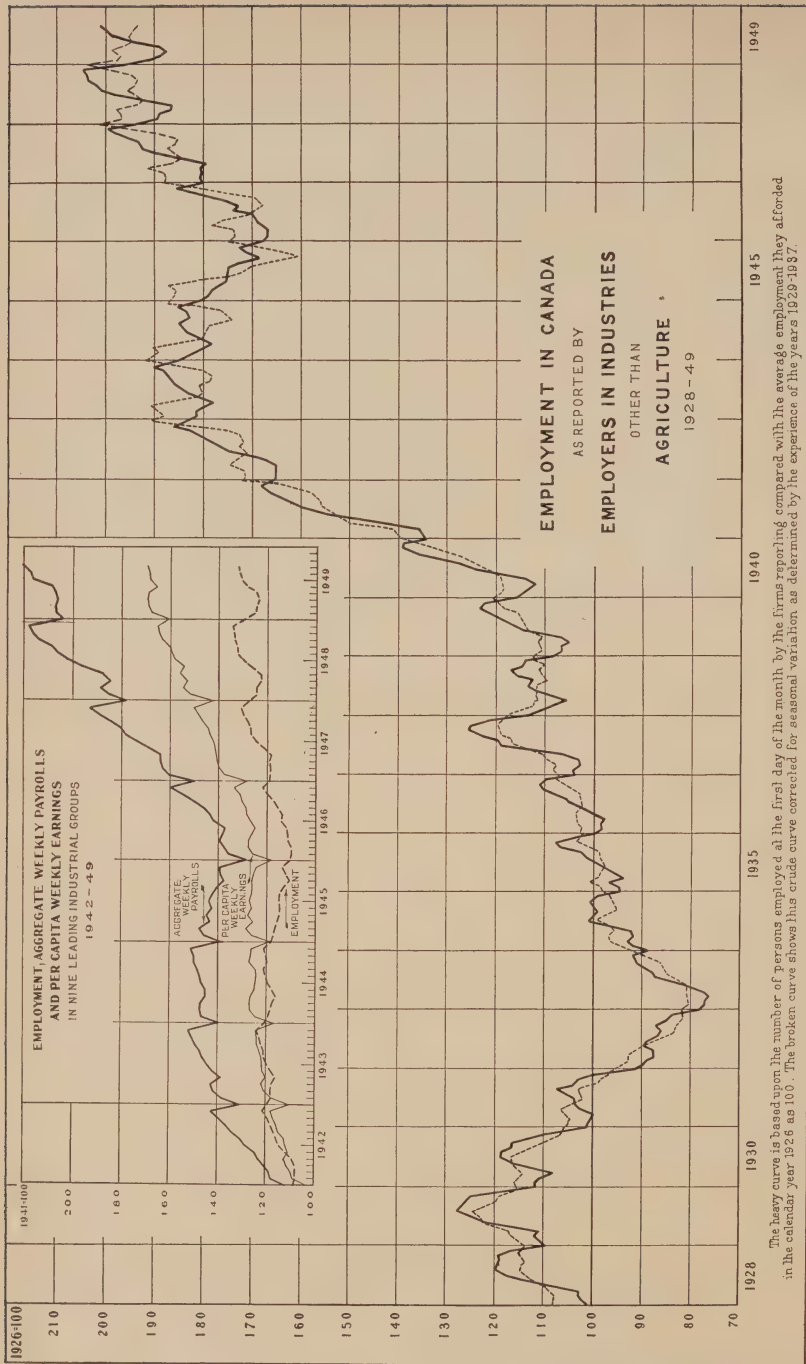




*Woods-workers start out on their day's work. They live in clean quarters, with laundry, bathing and recreational facilities available. Medical care is also provided.*

tendency for employment to level during 1949, the indexes of payrolls reached new all-time high levels in Ontario, the Prairie Provinces and British Columbia. In most areas, the average weekly salaries and wages were also higher than in any preceding period. Prince Edward Island was the exception, the per capita figure in that Province dropping from \$34.04 at Sept. 1, 1948, to \$33.59 at Sept. 1, 1949. The average for the period Jan. 1-Sept. 1 of the latter year, however, was 7.8 p.c. higher than in the first nine months of 1948. In the other provinces, increases in the average earnings during the period under review ranged from \$3.06 per week in British Columbia, to \$1.27 per week in both Nova Scotia and Alberta.

In the 12-month period ended Sept. 1, 1949, improvement in employment was indicated in six of the eight leading cities in Canada, the exceptions being Vancouver and Quebec. The employment index for the latter city was unchanged at 204.3, while the Vancouver index dropped from 240.4 to 232.5, largely a result of a falling-off in activity in manufacturing, transportation and construction. The greatest gain was made in Windsor, where the index rose by 4.6 p.c. Increases in Montreal, Toronto, Ottawa, Hamilton and Winnipeg ranged between 2 and 3 p.c. The general averages of weekly salaries and wages were higher in each of the larger cities, the increases at Sept. 1, 1949, varying from \$1.60 per week in Winnipeg to \$4.11 per week in Hamilton.



The heavy curve is based upon the number of persons employed at the first day of the month by the firms reporting compared with the average employment they afforded in the calendar year 1928 as 100. The broken curve shows this crude curve corrected for seasonal variation as determined by the experience of the years 1929-1937.

A brief review of the situation in the various industries shows that in manufacturing, the index of employment declined by 0.3 p.c. at Sept. 1, 1949, as compared with a year earlier. Although the recession was slight, it was noteworthy because it was the first reduction in staff in a 12-month comparison since 1946, when the situation had been seriously affected by cut-backs in war production, industrial disputes and other post-war problems.

The index at Sept. 1, 1948, had been 3 p.c. higher than at the same date in 1947. In the non-manufacturing industries included in the monthly surveys, taken as a unit, the index also declined slightly in the period under review, falling by 0.4 p.c., as compared with an increase of 5.7 p.c. recorded at Sept. 1, 1948, compared with a year earlier.

***Distribution of Persons in Recorded Employment in Manufacturing at Sept. 1, 1939, 1943 and 1946-49***

| Industrial Group                      | 1939         | 1943         | 1946         | 1947         | 1948         | 1949         |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                       | p.c.         | p.c.         | p.c.         | p.c.         | p.c.         | p.c.         |
| Durable manufactured goods.....       | 38.7         | 56.7         | 45.2         | 46.4         | 46.2         | 45.5         |
| Non-durable manufactured goods.....   | 58.2         | 41.7         | 52.5         | 51.0         | 50.7         | 51.1         |
| Central electric stations.....        | 3.1          | 1.6          | 2.3          | 2.6          | 3.1          | 3.4          |
| <b>All Manufacturing Industries..</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

The table indicates some shift in 1949 in the distribution of persons employed in leading manufacturing establishments. Activity in the durable goods industries fell by 2.3 p.c., as compared with 1948, reflecting a reduction in the backlog of consumer demand. On the other hand, employment increased by 1 p.c. in the non-durable goods section and by 9 p.c. in electric light and power, with the result that the proportions of employees in these main groups were higher than at the same date in immediately preceding years. In spite of significant changes in the industrial pattern during and since the War, the distribution in 1949 was closer to that indicated in the pre-war period than in any earlier year for some time.

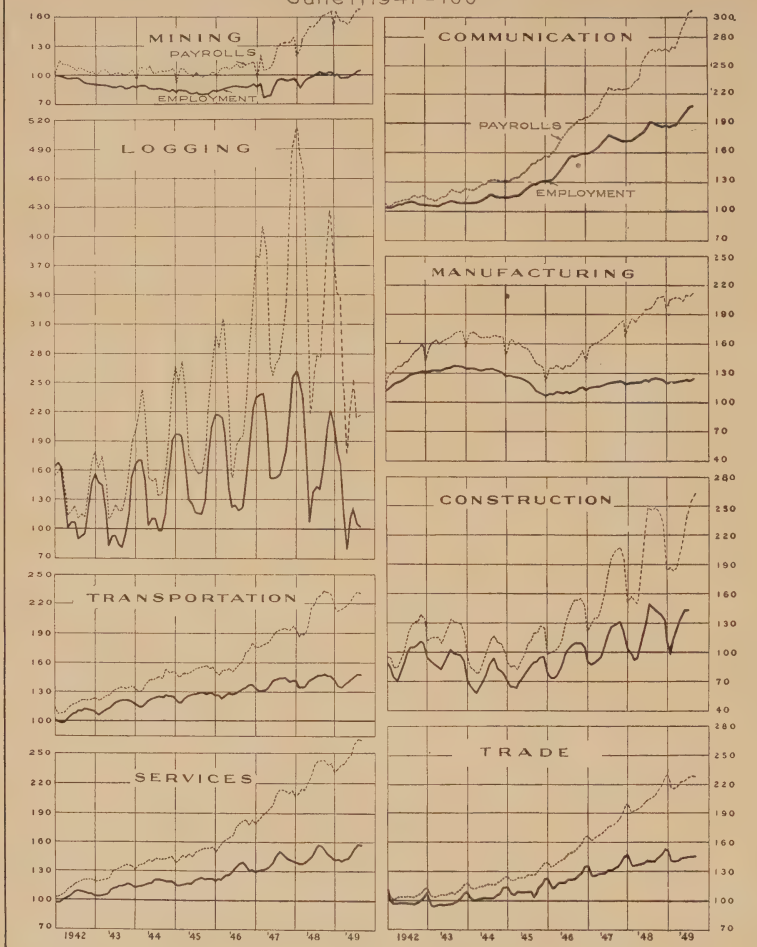
As previously mentioned, employment in the non-manufacturing industries taken as a unit declined by 0.4 p.c. during the year, although increases were indicated in some of the major industries. Employment in mining in 1949 was affected by strikes in the asbestos division for a lengthy period. Apart from this dispute, and the seasonal declines recorded during the winter months, employment in the industry continued to expand in the year under review; the index of 185.5 at Sept. 1, 1949, was the highest on record, fractionally exceeding the previous all-time high index indicated at Nov. 1, 1941. Employment in the communications industry increased by 8.7 p.c. in the 12-month period, also to reach a new maximum. The advance was particularly marked in the telephone section. As consumer demand was maintained at a high level, the indexes of employment in retail and wholesale trade were higher at Sept. 1, 1949, than at the same date in 1948 or earlier years. Employment in the service industries for which data are tabulated (consisting almost entirely of hotels, restaurants, laundries and dry-cleaning establishments) showed little change in the 12-month period; the index at Sept. 1, 1949, was only slightly higher than at Sept. 1, 1948.

Employment in logging was considerably lower throughout 1949 than in the preceding year. The index at Sept. 1, 1949, was lower than at the same



# INDEX NUMBERS OF EMPLOYMENT AND PAYROLLS BY INDUSTRIES, 1942-49

June 1, 1941 = 100



date in any earlier year since 1944, and was 27·1 p.c. below its level at Sept. 1, 1948. The falling-off in this industry was largely responsible for the decline in the general index of employment in the non-manufacturing industries. Some reduction in activity was indicated in construction and maintenance, the index dropping slightly from Sept. 1, 1948, to Sept. 1, 1949. The decrease took place in the highway and railway construction and maintenance divisions; the index for building construction rising by nearly 11 p.c. in the year, to a new all-time maximum at Sept. 1, 1949. Employment in transportation generally showed practically no change.

While employment in the eight leading industries declined by 0·4 p.c. between Sept. 1, 1948, and Sept. 1, 1949, the drop was confined to male employees; the number of women reported by the larger establishments

increased by 2.4 p.c., as compared with a reduction of 1.1 p.c. in the number of men. There were 212 women per 1,000 employees reported by leading establishments at Sept. 1, 1949, compared with 206 at Sept. 1, 1948. The proportion of women in manufacturing rose from 222 per 1,000 workers to 228 and women in communications from 525 per 1,000 employees to 529. With the exception of a decline of from 383 to 374 women per 1,000 employees reported in trade, the proportions in the other major groups showed little change.

### *Unemployment Insurance*

The Unemployment Insurance Act, 1940, providing a co-ordinated program of unemployment insurance and employment offices, is administered by an Unemployment Insurance Commission, consisting of a Chief Commissioner and two Commissioners (one appointed after consultation with employees and one after consultation with employers).

All employed persons are insured unless specifically excepted. Exceptions include such employments as agriculture, fishing, domestic service, school teaching, and those employed on other than an hourly, daily, piece or mileage basis with annual earnings exceeding \$3,120. Persons employed on an hourly, daily, piece or mileage basis are insured regardless of their earnings level.

Employers and their insured workers make contributions according to a graded scale, but in the country as a whole they contribute approximately equal amounts. The Federal Government adds one-fifth of the total employer-employee contributions and pays administration costs. War veterans who enter insured employment and contribute for at least 15 weeks in any year are deemed to have been in such employment for the period of their war service and contributions are paid on their behalf by the Government.

Rates of contribution and benefit under the Unemployment Insurance Act are related to the insured person's earnings. Weekly rates of contribution and selected weekly benefit rates are set forth in the table on p. 210. Contributions are made (usually) by means of the employer attaching a stamp in the employee's book. The stamp combines the employer's and employee's shares (the employer then deducting the employee's share from his earnings) and the weekly stamp is perforated so that it can be divided into six equal parts for the purpose of recording contributions for periods of less than a week. The daily rate of contribution is one-sixth of the weekly rate.

The daily rate of benefit for an insured person is calculated on the basis of his daily average contribution during the most recent 180 days contributions in the two years immediately preceding the claim. The daily rate of benefit for a claimant having no dependent is 34 times, and for a claimant with a dependent 10 cents less than 45 times this average. Daily benefit rates are adjusted to the nearest five cents. The weekly rate is six times the daily rate. The weekly rates of benefit presented in the table are calculated on the assumption that the beneficiary has contributed at the corresponding rate shown in the table during the preceding 180 contribution days.

Since April, 1949, the provisions of the Unemployment Insurance Act have been extended to Newfoundland. However until such time as workers in that Province will have accumulated sufficient contributions to entitle them to unemployment insurance benefits they are covered by a special scheme of unemployment assistance which provides for payments to unemployed persons on the same scale as unemployment insurance benefits.



Shaping girder ends with an oxy-acetylene torch. The demand for new and improved construction of all kinds has ensured the employment of workers at steadily increasing wage rates.

### Weekly Rates of Contribution and Benefit Under the Unemployment Insurance Act

(Effective Oct. 4, 1948)

| Class | Earnings in a Week  | Weekly Contributions |                         | Denomination of Stamp | Weekly Benefits                       |                                    |
|-------|---|----------------------|-------------------------|-----------------------|---------------------------------------|------------------------------------|
|       |   | Em-<br>ployer        | Em-<br>ployed<br>Person |                       | Person<br>Without<br>a De-<br>pendent | Person<br>With a<br>De-<br>pendent |
| 0     | While earning less than 90 cents a day or while under 16 years of age.... | cts. 9 <sup>1</sup>  | cts. 9 <sup>1,2</sup>   | cts. 18               | \$ 1                                  | \$ 1                               |
| 1     | Earning \$5.40 to \$7.49 in a week....                                    | 18                   | 12                      | 30                    | 4.20                                  | 4.80                               |
| 2     | Earning \$7.50 to \$9.59 in a week....                                    | 24                   | 15                      | 39                    | 5.10                                  | 6.30                               |
| 3     | Earning \$9.60 to \$11.99 in a week...                                    | 24                   | 18                      | 42                    | 6.00                                  | 7.50                               |
| 4     | Earning \$12.00 to \$14.99 in a week..                                    | 24                   | 21                      | 45                    | 7.20                                  | 9.00                               |
| 5     | Earning \$15.00 to \$19.99 in a week..                                    | 24                   | 24                      | 48                    | 8.10                                  | 10.20                              |
| 6     | Earning \$20.00 to \$25.99 in a week..                                    | 30                   | 30                      | 60                    | 10.20                                 | 12.90                              |
| 7     | Earning \$26.00 to \$33.99 in a week..                                    | 36                   | 36                      | 72                    | 12.30                                 | 15.60                              |
| 8     | Earning \$34.00 or more in a week...                                      | 42                   | 42                      | 84                    | 14.40                                 | 18.30                              |

<sup>1</sup> Workers in this class make no contributions and are not eligible for benefit. They may, however, accumulate benefit rights on the basis of employer contributions. <sup>2</sup> Paid on his behalf by employer.



During the first six months of 1949, 464,497 initial and renewal claims were filed in Local Offices, 392,765 were considered entitled to benefit and benefit payments amounted to \$42,516,168. During the calendar year 1948 there were 649,090 initial and renewal claims filed, 499,321 claimants were considered entitled to benefit, and benefit payments totalled \$40,268,109. In 1947, 442,854 initial and renewal claims were filed, 322,333 were considered entitled to benefit, and the amount of benefit paid was \$31,994,772.

*Persons Issued an Unemployment Insurance Book, by Sex and Province, as at Apr. 1, 1948*

| Province          | Male    | Female  | Province           | Male             | Female         |
|-------------------|---------|---------|--------------------|------------------|----------------|
| P. E. Island..... | 3,340   | 1,480   | Manitoba.....      | 111,390          | 41,050         |
| Nova Scotia.....  | 59,630  | 13,980  | Saskatchewan...    | 41,190           | 16,340         |
| New Brunswick..   | 51,240  | 15,120  | Alberta.....       | 82,140           | 27,070         |
| Quebec.....       | 459,000 | 187,110 | British Columbia   | 173,370          | 55,700         |
| Ontario.....      | 681,740 | 277,450 | <b>Totals.....</b> | <b>1,663,040</b> | <b>635,300</b> |

## Wage Rates and Hours of Labour

Index numbers of wage rates, compiled by the Department of Labour, show the general movement of wage rates for the main industrial groups as well as for individual industries, but cannot be used to compare rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piece-work earnings and therefore do not include overtime or other premium payments. From 1930 to 1933 there was a considerable decrease in wage rates but increases have been general each year since that time. During 1939-48 the rise amounted to about 96 p.c.

### Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-48

(Rates in 1939 = 100)

| Year    | Logging | Coal Mining | Metal Mining | Manufacturing | Construction | Water Transport | Steam Railways | Electric Railways | Telephones | General Average <sup>1</sup> |
|---------|---------|-------------|--------------|---------------|--------------|-----------------|----------------|-------------------|------------|------------------------------|
| 1901... | 51.4    | 47.4        | 61.2         | ..            | 35.3         | 43.9            | 33.7           | 32.8              | ..         | 38.1                         |
| 1905... | 57.0    | 49.5        | 58.7         | ..            | 42.8         | 44.7            | 36.5           | 37.7              | ..         | 43.1                         |
| 1910... | 64.0    | 54.0        | 62.5         | ..            | 50.9         | 48.4            | 44.1           | 44.0              | ..         | 49.9                         |
| 1915... | 61.1    | 58.7        | 66.2         | 50.1          | 59.4         | 54.0            | 49.8           | 50.2              | ..         | 53.2                         |
| 1920... | 142.5   | 113.3       | 102.9        | 102.4         | 106.0        | 105.2           | 108.2          | 99.7              | 92.2       | 107.0                        |
| 1925... | 95.2    | 96.1        | 93.3         | 92.3          | 99.8         | 90.4            | 91.2           | 96.4              | 89.1       | 93.8                         |
| 1930... | 97.5    | 97.1        | 93.9         | 95.5          | 119.1        | 97.2            | 100.0          | 102.3             | 94.7       | 99.9                         |
| 1935... | 73.1    | 95.0        | 92.6         | 87.0          | 93.6         | 81.1            | 90.1           | 94.3              | 93.0       | 88.4                         |
| 1936... | 80.9    | 95.1        | 94.9         | 89.1          | 94.2         | 82.4            | 90.1           | 95.2              | 93.8       | 90.0                         |
| 1937... | 93.9    | 95.6        | 99.1         | 96.1          | 96.9         | 92.0            | 96.0           | 97.8              | 98.5       | 96.7                         |
| 1938... | 101.8   | 100.0       | 99.6         | 99.2          | 99.2         | 99.1            | 100.0          | 99.4              | 99.7       | 99.6                         |
| 1939... | 100.0   | 100.0       | 100.0        | 100.0         | 100.0        | 100.0           | 100.0          | 100.0             | 100.0      | 100.0                        |
| 1940... | 104.9   | 102.1       | 102.8        | 104.3         | 104.5        | 105.2           | 100.0          | 103.9             | 101.3      | 103.9                        |
| 1941... | 114.0   | 109.4       | 112.2        | 115.2         | 111.6        | 113.3           | 109.4          | 109.1             | 106.4      | 113.1                        |
| 1942... | 125.9   | 113.1       | 118.7        | 125.5         | 118.6        | 125.8           | 114.8          | 115.8             | 112.0      | 122.5                        |
| 1943... | 143.1   | 124.8       | 123.1        | 136.8         | 127.7        | 138.8           | 125.5          | 121.2             | 121.9      | 133.7                        |
| 1944... | 146.1   | 146.0       | 125.2        | 141.4         | 129.6        | 142.2           | 125.5          | 125.7             | 122.4      | 137.9                        |
| 1945... | 153.3   | 146.2       | 128.2        | 146.5         | 131.1        | 144.6           | 125.5          | 126.6             | 125.6      | 141.8                        |
| 1946... | 167.4   | 146.7       | 135.7        | 161.5         | 143.9        | 162.3           | 142.3          | 139.5             | 125.2      | 155.2                        |
| 1947... | 195.1   | 166.7       | 157.7        | 183.3         | 155.0        | 183.8           | 142.3          | 162.3             | 132.2      | 173.7                        |
| 1948... | 218.8   | 192.9       | 173.1        | 205.9         | 176.3        | 213.5           | 170.2          | 175.0             | 140.4      | 195.8                        |

<sup>1</sup> Includes laundries.

In 1948 average standard weekly hours of labour in manufacturing, weighted by the number of male workers, were as follows: primary textile products, 46·1; clothing, 41·3; rubber, 45·1; pulp and its products, 47·8; paper boxes, 45·3; printing and publishing, 41·0; lumber and its products, 46·0; edible plant products, 47·5; edible animal products, 46·6; fur products, 42·4; leather and its products, 46·1; iron and its products, 45·0; tobacco products, 45·0; brewery products, 43·9; and electrical products, 43·0. Average hours in construction were 43·3; in wholesale trade, 43·7; and in retail trade, 43·7. Weekly hours in logging in the British Columbia coastal area were 40, and in Eastern Canada the majority worked 60 hours. Coal mining in Western Canada was on a 40-hour schedule generally and in Eastern Canada, 48 hours. In metal mining, the 48-hour week was usual in all provinces except British Columbia where the 44-hour week prevailed.

Towards the end of 1944 a statutory 48-hour week, which had been in force in British Columbia for some years, became effective in Ontario. In 1946, however, British Columbia adopted a 44-hour week and the next year Saskatchewan stipulated that no person could be employed for more than 44 hours unless an overtime rate of time and one-half was paid. These statutes exempt a few classes and permit exceptions to be made by the administrative authorities.

### *Vocational Training*

The Training Branch of the Department of Labour is responsible for the administration of the Vocational Training Co-ordination Act, 1942. The Act provides financial assistance to the provinces for various types of training under specified conditions which are set out in Agreements between the Federal Government and the Provincial Governments concerned. The Director of Training at headquarters is assisted by a Regional Director in each province. An Advisory Council representing workers, veterans, employers, etc., advises the Minister on policy and procedure in connection with training projects.

Youth Training Agreements, for young people between 16 and 30 years, are in effect with all provinces, and the federal appropriation of \$425,000 is distributed among them, expenditure being shared equally by the Federal and Provincial Governments. Financial assistance is provided for university students and nurses; in addition, thousands of young people, particularly in rural areas, have benefited by training in agricultural pursuits.

There are Apprenticeship Acts in all provinces. In seven provinces apprenticeship training in skilled trades is aided by the Federal Government under agreements that have been in effect for nearly four years. Over 10,900 apprentices were registered on Mar. 31, 1949.

Youth Training, Veterans Training, Training of Supervisors and of Unemployed Civilians were consolidated under the "Vocational Training Agreement", effective Apr. 1, 1948. The Federal and Provincial Governments share equally in all approved expenditures except for Veterans Training, which is all borne by the Federal Government. This Agreement has been signed by all provinces.

Vocational and technical training on the secondary school level is being assisted in each province for a ten-year period. A \$10,000 annual grant is made to each province and, in addition, if the province appropriates an amount equal to the federal contribution, a sum of \$1,910,000 is available to the provinces each year. This amount is divided in proportion to the



*Production line in a nylon stocking plant. Over 36 p.c. of all women working in factories are employed in the textile industries, which are concentrated mainly in Ontario and Quebec.*

population in each province between the ages of 15 and 19 years. On the same basis, a special federal contribution of \$10,000,000 has been allotted for capital expenditures incurred prior to Mar. 31, 1952, for buildings and equipment. The program of vocational and pre-matriculation training of former members of the Armed Forces is practically completed.

### *National Employment Service*

The Unemployment Insurance Commission operates a nation-wide free employment service under authority of the Unemployment Insurance Act, 1940. This service is available to all and is widely used by non-insured persons as well as insured workers. With regard to the latter, through the employment service the Commission certifies that a claimant for unemployment insurance benefit is unemployed and that suitable work is, or is not, available. This test is a basic condition for the receipt of unemployment insurance.

During the post-war years the National Employment Service in co-operation with the Department of Labour has played an important role in placing displaced persons from Europe in employment. From the inception of the Group Immigration Plan in August, 1947, until October, 1949, approximately 38,000 workers with 3,000 dependants were directed to employment.





Lake freighters tied up at the Georgian Bay port of Owen Sound. Railway freight terminals are on the left and a 4,000,000-bu. grain elevator is in the background.

# Transportation Communications

IMPROVED and ever-expanding means of transportation by land, air and water have characterized the development of the distributive agencies of Canada's economy. Indeed, in some aspects of this advance, such as the transport of freight by air in the northwest, Canada has pioneered. The following treatment shows that the country is abreast of the times not only in transportation but also in the means whereby distributive facilities are made more efficient.

## *Steam Railways*

It would be difficult to over-estimate the importance of the railways in the building of Canada. To-day, with its relatively small population distributed mainly in the southern portion of a vast area 4,000 miles in breadth and engaged in extensive external and internal trade relations, a large and efficient transportation system is a necessity.

One of the first great undertakings to engage the attention of the young Dominion after Confederation in 1867 was the building of a transcontinental railway to link the east and west. Surmounting tremendous difficulties, the Canadian Pacific Railway was completed in 1885 and the vast hinterland of the Canadian west was opened for settlement. The wheat boom during the period 1900-13 brought prosperity and rapid economic expansion and precipitated another era of railway development. To other transcontinental systems, the Canadian Northern and the Grand Trunk Pacific (with the government-built National Transcontinental) were built, and total Canadian railway mileage increased from 18,140 in 1901 to 30,795 in 1914.

Construction continued in the war years and during 1914-18 nearly 7,500 miles of railway were opened to traffic, bringing the total up to 38,252 miles. Much of the financing of the Canadian Northern and Grand Trunk Pacific lines was aided by the Federal and Provincial Governments guaranteeing the interest and principal of their debentures. Immigration was stopped by the War, traffic in the Western Provinces did not develop as anticipated, and these two railways and the Grand Trunk Railway, which was constructing the Grand Trunk Pacific, soon were unable to meet their interest payments. A commission was appointed on the advice of which the Federal Government took over these railways and amalgamated them with the Government-owned railways, some of which had been constructed as a pact of Confederation. The resulting Canadian National Railways had a total mileage in 1923 of 21,805 miles, including mileage of the Grand Trunk lines in the United States; this mileage had grown to 23,404 by the end of 1948.

The Provincial Government of British Columbia also took over a bankrupt railway (348 miles) and the Canadian National and Canadian Pacific jointly took over the Northern Alberta Railway (923 miles), which had been under private ownership but was unable to continue operations. The Province of Ontario built and operated a railway (574 miles) primarily for colonization

purposes. Thus the publicly operated railways in Canada are a combination of lines, some of which were constructed for political reasons or colonization purposes and some taken over from private companies faced with bankruptcy.

As a group these railways have not been prosperous: the Canadian National Railways earned a surplus only in 1926 and 1928, and in the five war years, 1941-45, inclusive. During the period 1923-48 the net result was a cash deficit of \$519,797,636 exclusive of capital losses and interest on advances by the Federal Government to meet operating deficits.

With the outbreak of the Second World War, industrial production increased rapidly and freight traffic of the railways showed corresponding increases. Passenger traffic showed even larger increases. The following table shows railway data for 1928, the pre-war peak year; 1933, the lowest of the depression years; 1938, the last full year before the War; and 1942-48, years affected by war and post-war conditions. Since the end of the War passenger traffic has declined steadily, due mainly to the competition of the motor-bus and private automobile.

As the railways are public utilities enjoying certain exclusive operating rights, the Board of Transport Commissioners was set up to control freight and passenger rates as well as other matters relating to construction, operation and safety of railways.

### *Summary Statistics of Canadian Railways, 1928, 1933, 1938 and 1942-48*

| Year      | Freight Carried<br>One Mile | Passengers<br>Carried <sup>1</sup> | Em-<br>ployees | Gross<br>Operating<br>Revenues | Operating<br>Expenses |
|-----------|-----------------------------|------------------------------------|----------------|--------------------------------|-----------------------|
|           | tons                        | No.                                | No.            | \$                             | \$                    |
| 1928..... | 41,610,660,776              | 40,592,792                         | 187,710        | 563,732,260                    | 442,701,270           |
| 1933..... | 21,092,594,200              | 19,172,193                         | 121,923        | 270,278,276                    | 233,133,108           |
| 1938..... | 26,834,696,695              | 20,911,196                         | 127,747        | 336,833,400                    | 295,705,638           |
| 1942..... | 56,153,953,000              | 47,596,602                         | 157,740        | 663,610,570                    | 485,783,584           |
| 1943..... | 63,915,074,000              | 57,175,840                         | 169,663        | 778,914,565                    | 560,597,204           |
| 1944..... | 65,928,078,992              | 60,335,950                         | 175,095        | 796,636,786                    | 634,774,021           |
| 1945..... | 63,349,094,918              | 53,407,845                         | 180,603        | 774,971,360                    | 631,497,562           |
| 1946..... | 55,310,257,842              | 43,405,177                         | 180,383        | 718,510,764                    | 623,529,472           |
| 1947..... | 60,143,034,978              | 40,941,387                         | 184,415        | 785,177,920                    | 690,821,047           |
| 1948..... | 59,080,323,337              | 38,279,981                         | 189,963        | 875,832,290                    | 808,126,455           |

<sup>1</sup> Duplications included.



New Roomette Cars are now being built for the Canadian National Railways. These low-priced luxury cars contain 24 individual self-contained rooms, 12 on the floor level and 12 interlocking rooms three easy steps above floor level.





The locomotive of to-day represents over a century of improvement. The giant oil-burning steam engine above, assigned in 1949 to the Calgary-Revelstoke run through the Rockies, is probably the last of her line. The diesel engine (to right) is rapidly replacing the steam engine on the railways.



## Electric Railways

Widespread changes in urban transport systems have been taking place in recent years. Electric street railways, at one time the sole type of conveyance, have been replaced or supplemented in many Canadian cities by the motor-bus and the trolley-bus, while a large number of interurban electric lines have been abandoned. During 1948, electric cars were in operation in 19 Canadian cities compared with 43 in 1926. In many cases, the same transportation company has remained in operation, using motor-buses instead of electric cars, but in a considerable number of cities in Ontario and Western Canada the transportation services are owned and operated by the municipalities. Windsor is at present the largest city where buses, exclusively, are operated. Trolley-buses were in use in Montreal, Toronto, Kitchener, Winnipeg, Calgary, Edmonton, Regina, Fort William, Port Arthur and Vancouver.

Equipment owned by companies or municipalities operating electric railways in 1948 included 3,105 electric passenger cars, 1,981 buses and 518

trolley-buses. Passengers carried by these vehicles in that year numbered nearly 1,309,566,000. Electric cars carried 70 p.c. of the traffic, motor-buses 23 p.c. and trolley-buses 7 p.c.

## *Roads and Highways*

The rapid increase in the percentage of motor-car owners to population created a demand for improved roads that has become more and more insistent during the past 30 years. Furthermore, the advantages to be gained by attracting motoring visitors have been a powerful incentive to governing bodies to improve roads and scenic highways within their jurisdictions. Also the widespread rural ownership of automobiles and trucks has brought about improvement of secondary rural roads. There are great stretches of country in the northern portions of Quebec, Ontario, the Prairie Provinces, and British Columbia sparsely populated and with very few roads, but the southern portions are well supplied.

At the end of 1947 there were in Canada 145,809 miles of surfaced road and 408,682 miles of non-surfaced road. Of the surfaced road, 126,780 miles were gravel, 16,624 miles were bituminous surfaced and 2,405 miles concrete. All roads, except those in the Territories and the National Parks which are the responsibility of the Federal Government, are under the juris-

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*The street railway system in Ottawa, privately owned since its establishment in 1891, was taken over by the municipality in 1948.*





The North Bay-Sudbury highway near the town of Wahnapeitei, Ont.



diction of provincial and municipal authorities. The expenditures for 1947 on construction and maintenance of roads and bridges amounted to \$232,514,295.

Motor-Vehicles

There were more motor-vehicles registered in Canada in 1948 than in any other year. The number was 2,034,943, of which 1,496,784 were passenger cars and 538,159 commercial vehicles, including 487,913 trucks, 4,286 buses and 45,960 miscellaneous vehicles. Motorcycle registrations showed a decided increase over 1947, being 33,939 as against 26,129 in the previous year. The apparent supply of new passenger automobiles, which amounted to only 2,099 in 1945, increased to 82,137 in 1946, 163,787 in 1947 and 152,336 in 1948.

Provincial revenues from motor-vehicle registrations and licences reached a high of \$51,287,732 in 1948, and provincial gasoline tax revenues amounted to \$124,330,987.

Motor-Vehicles Registered, 1939-48

| Year    | P.E.I. | N.S.   | N.B.   | Que.    | Ont.    | Man.    | Sask.   | Alta.   | B.C.    | Canada <sup>1</sup> |
|---------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------------------|
| 1939... | 8,040  | 53,008 | 38,116 | 213,148 | 682,891 | 88,864  | 119,018 | 113,702 | 122,087 | 1,439,245           |
| 1940... | 8,070  | 57,873 | 39,000 | 225,152 | 703,872 | 90,932  | 126,970 | 120,514 | 128,044 | 1,500,829           |
| 1941... | 8,015  | 62,805 | 41,450 | 232,149 | 739,194 | 96,573  | 131,545 | 126,127 | 134,499 | 1,572,784           |
| 1942... | 7,537  | 58,872 | 37,758 | 222,622 | 715,380 | 93,147  | 130,040 | 125,482 | 132,893 | 1,524,153           |
| 1943... | 8,032  | 59,194 | 40,205 | 222,676 | 691,615 | 93,494  | 133,839 | 127,559 | 134,691 | 1,511,845           |
| 1944... | 8,412  | 57,933 | 39,570 | 224,042 | 675,057 | 93,297  | 140,992 | 127,416 | 135,090 | 1,502,567           |
| 1945... | 8,835  | 56,699 | 41,577 | 228,681 | 662,719 | 92,758  | 140,257 | 130,153 | 134,788 | 1,497,081           |
| 1946... | 9,192  | 62,660 | 44,654 | 255,172 | 711,106 | 101,090 | 148,206 | 138,868 | 150,234 | 1,622,463           |
| 1947... | 9,948  | 70,300 | 51,589 | 296,547 | 800,058 | 112,149 | 158,512 | 155,386 | 179,684 | 1,835,959           |
| 1948... | 11,290 | 76,319 | 62,366 | 335,953 | 874,933 | 128,000 | 167,515 | 173,950 | 202,126 | 2,034,943           |

<sup>1</sup> Includes registrations in Yukon and the Northwest Territories.

**Motor-Carriers.**—Motor-buses and motor-trucks have increased steadily in importance in the transportation field, providing as they do freight



and passenger service between numerous localities, both with and without railway facilities. During the war years rationing of gasoline, tires and motor-vehicles restricted the service considerably. The heavy short-haul traffic of employees to and from munition factories, air fields, etc., obscured, in the statistics, the curtailment in interurban traffic, but since buses have become more plentiful, vehicle-mileage of inter-city and rural transit systems has shown a decided increase.

### *Statistics of Motor-Carriers, 1944-47*

| Item   | 1944 <sup>a</sup> | 1945        | 1946        | 1947        |
|--|-------------------|-------------|-------------|-------------|
| Investments in land, buildings and equipment..... \$ | 54,186,461        | 59,400,753  | 72,725,752  | 91,278,837  |
| Revenues..... \$                                     | 81,707,604        | 88,157,490  | 102,241,162 | 118,139,496 |
| Equipment—   |                   |             |             |             |
| Trucks.....No.                                       | 6,772             | 6,486       | 6,652       | 7,183       |
| Tractor, semi-trailers.... "                         | 2,063             | 2,063       | 2,387       | 2,657       |
| Trailers..... " "                                    | 1,103             | 1,154       | 1,368       | 1,791       |
| Buses..... " "                                       | 3,104             | 3,322       | 3,824       | 4,125       |
| Passengers carried..... "                            | 234,809,000       | 239,858,000 | 261,041,676 | 281,651,437 |
| Freight, inter-city and rural ton                    | 9,605,000         | 10,854,000  | 11,944,384  | 13,071,660  |

### *Shipping*

Canadian shipping is divided into two classes: (1) foreign service, and (2) coasting service. The first is subdivided into: (a) seagoing, i.e., between Canadian ports on the Pacific and Atlantic Oceans and on the St. Lawrence

*The canals of the St. Lawrence open up the interior of the continent to ocean-going vessels from all corners of the world. The lake freighter on the right takes advantage of the river current on her down-stream run.*



up to Montreal, and ports in other countries, including fishing at sea; and (b) inland, i.e., between Canadian and United States ports on the Great Lakes and connecting rivers. The second is service between Canadian ports, including fishing in Canadian waters. Shipping statistics are collected only from ports at which there is an official of the Customs and Excise Division of the National Revenue Department, and consequently do not include shipping on the Mackenzie River, Lake Winnipeg, etc.

### *Vessels Entered at Canadian Ports, 1940-48*

| Year                    | Foreign Service <sup>1</sup> |               | Coasting Service |               | Totals  |               |
|-------------------------|------------------------------|---------------|------------------|---------------|---------|---------------|
|                         | No.                          | Tons Register | No.              | Tons Register | No.     | Tons Register |
| 1940 <sup>2</sup> ..... | 46,241                       | 46,666,396    | 78,212           | 44,361,232    | 124,453 | 91,027,628    |
| 1941 <sup>2</sup> ..... | 25,122                       | 32,579,900    | 79,951           | 50,471,166    | 105,073 | 83,051,066    |
| 1941 <sup>3</sup> ..... | 26,203                       | 31,452,400    | 77,592           | 48,111,082    | 103,795 | 79,563,482    |
| 1942.....               | 24,066                       | 25,640,763    | 73,366           | 43,990,764    | 97,432  | 69,631,527    |
| 1943.....               | 22,901                       | 26,345,562    | 65,066           | 40,300,778    | 87,967  | 66,646,340    |
| 1944.....               | 23,786                       | 28,356,681    | 64,999           | 43,776,497    | 88,785  | 72,133,178    |
| 1945.....               | 24,431                       | 29,655,984    | 65,410           | 48,098,201    | 89,841  | 77,754,185    |
| 1946.....               | 26,461                       | 30,367,071    | 67,014           | 45,559,014    | 93,475  | 75,926,085    |
| 1947.....               | 27,868                       | 35,926,095    | 73,439           | 51,823,502    | 101,307 | 87,749,597    |
| 1948.....               | 31,138                       | 39,443,055    | 75,141           | 52,453,382    | 106,279 | 91,896,437    |

<sup>1</sup> Sea-going and inland international.

<sup>2</sup> Year ended Mar. 31.

<sup>3</sup> Calendar year.

## *Harbours*

Facilities provided for the co-ordination of land and water transportation at Canada's many ports include docks and wharves, warehouses for general cargo, cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil storage tanks and, in the chief harbours, dry-dock accommodation. Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill—are administered by the National Harbours Board, seven others by commissions that include municipal as well as Federal Government appointees, and the remainder by harbour masters directly under the authority of the Department of Transport.

## *Canals*

There are six canal systems under the Department of Transport, namely: (1) between Fort William and Montreal, (2) from Montreal to the International Boundary near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to the Bras d'Or Lakes in Cape Breton. These canals have opened to navigation from the Atlantic about 1,875 miles of waterways. Under the Department of Public Works or other authority are minor canals and locks that facilitate local navigation.

The Great Lakes and St. Lawrence River form one of the busiest waterways in the world. More traffic passes up and down the St. Mary's River than any other waterway; in 1948 it reached a tonnage of 115,894,650. Though this was a decrease of over 4 p.c. from the peak year of 1942, which was high because of heavy war requirements of iron ore, it was a peacetime record.



*Trans-Canada Air Lines "North Star" over Lake St. Louis, Que.*

## Civil Aviation

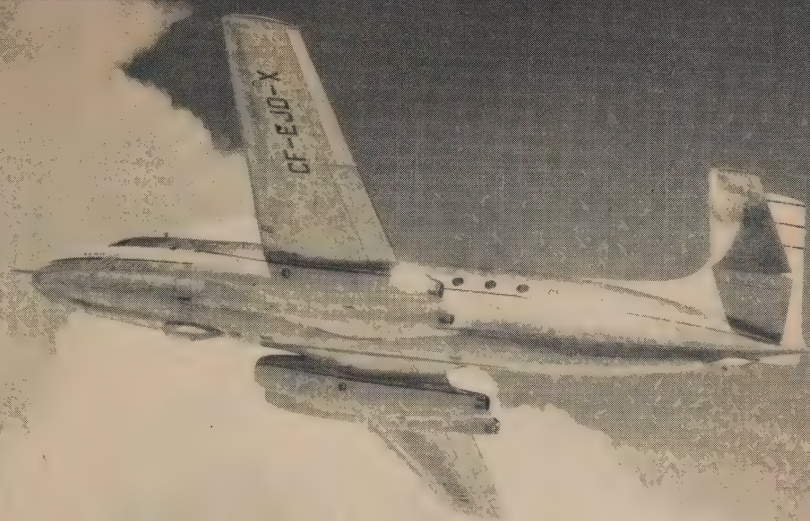
The control of civil aviation in Canada is under the jurisdiction of the Federal Government. The Department of Transport deals with the technical side which includes matters of registration of aircraft, licensing of airmen, establishment and maintenance of airports and facilities for air navigation, air-traffic control, accident investigation and the safe operation of aircraft. Certain statutory functions with respect to the issue of licences to operate commercial air services and the subsequent economic regulation of commercial air services in accordance with the dictates of the public interest are assigned to the Air Transport Board.

Air transport services are grouped into two broad classes: (1) Scheduled Services, providing regular point-to-point services and (2) Non-Scheduled Services which include services not on regular time schedules, chartered and contract services, and specialty services such as forestry or other surveys.

**Trans-Canada Air Lines.**—Incorporated in 1937, TCA in 1949 operated 16,000 miles of routes, flying to 40 communities in Canada, the United States, the British Isles, Bermuda and the West Indies.

During 1948-49 local services in the Prairie Provinces were extended by including Brandon and Yorkton on the Winnipeg-Regina route. The cities of Lethbridge, Edmonton, Saskatoon, Regina, Medicine Hat and Swift Current were linked by feeder service to the main-line route. Flight frequency of the Ontario service between Toronto, North Bay, Porquis Junction and Kapuskasing was placed on a daily basis. A second daily flight was added





*Canadian designed and built, the Avro jet-powered airliner is powered by four Rolls-Royce Derwent 5 gas turbine engines, has a cruising speed of 427 m.p.h. and carries 50 passengers. This aircraft has recently been tested and is expected to be in production by 1952.*

between Toronto, Sault Ste. Marie, the Lakehead and Winnipeg. Direct operations commenced between Sydney, N.S., Moncton and Saint John, N.B.

In the domestic service, during the year ended Mar. 31, 1949, 562,170 passengers, 2,772,985 ton-miles of mail and 1,581,879 ton-miles of commodity traffic were carried as compared with 438,549 passengers, 1,311,764 ton-miles of mail and 645,771 ton-miles of commodity traffic in the previous year. These figures include the emergency service provided in British Columbia during the flood in the early summer when all surface communications with that Province were severed for a period of three weeks. Included also is the general carriage of first-class mail by air at unchanged postal rates. As a result of this service, Canadians enjoy the most inexpensive air-mail service in the world.

Overseas flights during the year ended Mar. 31, 1949, accommodated 39,796 passengers, 381,988 ton-miles of mail and 1,099,393 ton-miles of commodity transport, compared with 17,657 passengers, 334,643 ton-miles of mail and 662,116 ton-miles of commodity transport in the preceding year. Under charter contract first with the Province of Ontario and then with the Federal Government, TCA brought to Canada 6,000 immigrants from the United Kingdom and the Continent in 175 westbound crossings during 1948-49—the largest mass movement of immigrants in air transport history.

Flight equipment at the close of 1949 included 20 four-engined North Stars and 27 twin-engined DC-3's.

**Canadian Pacific Air Lines.**—Canadian Pacific Air Lines operate a widespread group of north-south schedules across Canada whose routes,

as at Mar. 31, 1949, covered a distance of 9,770 miles. Company aircraft during the year flew a distance of nearly 5,000,000 miles, carrying 145,891 passengers, 1,882,034 lb. of mail and 7,309,663 lb. of freight.

In 1948 the Federal Government assigned to Canadian Pacific Air Lines the licence to operate trans-Pacific air services between Canada and points in Australia, New Zealand and the Far East. As a result, development and organization work progressed and orders were placed for the construction of Canadair four-motored aircraft for use on these routes. The trans-Pacific air service between Vancouver and Australia and New Zealand was inaugurated in July, 1949, and the service between Vancouver and the Orient via Alaska, Shemya, Tokyo, Shanghai and Hong Kong in September, 1949.

**Independent Air Lines.**—Additional to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are seven other domestic air lines licensed to operate scheduled services in Canada. However, most of the independent air lines operate non-scheduled services which, with few exceptions, are charter services from designated bases. It is in this field that the greatest development has taken place in recent years. Non-scheduled charter services and non-scheduled specific point services provide effective means of access to sections of Canada that are inaccessible by other means of transportation and also act as feeders to the scheduled air lines.

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*Cargo flown into the north country by airliner.*





*The Empress of Sydney at Honolulu Airport on its inaugural flight. The Canadian Pacific Air Line launched its Australian service in July and its Hong Kong service in September, 1949.*



**International Agreements.**—Canada's position in the field of aviation as well as its geographical location makes it imperative that she should co-operate with other nations of the world engaged in international civil aviation. Canada played a major part in the original discussions that led to the establishment of the International Civil Aviation Organization now with headquarters at Montreal. Canada has actively participated in the deliberations of ICAO and its many committees, and as a result has secured the benefits of the joint knowledge and experience of all member states in the technical and economic aspects of all phases of civil aviation.

As a result of the entry of Newfoundland into Union with Canada on Mar. 31, 1949, new bilateral air agreements have been signed between Canada and the United States, the United Kingdom and Belgium. Canada has been given extended rights on the North Atlantic for traffic from Ireland, Iceland and the Azores, and has been given rights in Brussels by the Belgian Government.

On the Caribbean route, rights have been obtained in Florida from the United States and for additional points of call in British territories. In the Pacific new agreements provide for calls at Honolulu and Fiji and Hong Kong. Also TCA is to be authorized to obtain the right to operate from Montreal to New York in the trans-border field. Operating certificates have been issued to nine Commonwealth and foreign scheduled services flying into Canada.

### *Telegraphs*

Six telegraph systems are operated in Canada, four in conjunction with the railways, one by the Federal Government and one small system that is owned and operated independently. One United States company uses lines across Canadian territory; one private Canadian company operates a wireless system; and three cable companies, in addition to the telegraph companies, operate cables from Canadian stations. In all, there are 22 cables between





*Maintenance men repairing a land telegraph line after a winter storm. Meanwhile, messages are re-routed through other channels.*

Canada and England, the Azores, Australia, New Zealand, Newfoundland, St. Pierre and Miquelon, and Bermuda, and two cables between North Sydney and Canso, N.S.

These systems have 400,320 miles of telegraph wire in Canada, 5,320 miles outside of Canada, and 32,816 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally produce 924,851 miles of channels for telegraphic use. During 1948 a total of 19,013,468 telegrams and 1,579,679 cablegrams, excluding messages between foreign countries, were handled by these systems.

## *Telephones*

There were 3,056 telephone systems in Canada in 1947, with 7,285,681 miles of wire and 2,230,597 telephones. The estimated number of conversations during the year was 3,843,264,173 or 1,723 per telephone. The transfer from manually operated telephone switchboards to automatic has continued steadily, although it was somewhat restricted by scarcity of equipment during the war years. In 1947, 56 p.c. of all telephones were dial telephones; 93 p.c. of these were in urban centres of over 10,000 population, where they comprised 79 p.c. of the telephones in use.

## *Radio*

On Feb. 9, 1932, the Judicial Committee of the Imperial Privy Council, to whom the matter had been referred, ruled that the control and regulation of radio-communication rested within the jurisdiction of the Federal Parliament. The enactment of the Canadian Radio Broadcasting Act of 1932, by which power was vested in the Canadian Radio Broadcasting Commission to control and regulate radio broadcasting in Canada, followed. At this time the Commission was without a transmission system of its own but proceeded to carry out its responsibilities under the Act in regard to the control of privately owned stations. The nucleus of a nationally owned system was secured in 1933 on the acquisition and operation by the Commission of three stations of the Canadian National Railways at Moncton, Ottawa and Vancouver. The present Canadian Broadcasting Corporation succeeded the Canadian Radio Broadcasting Commission in 1936.

The responsibilities of the CBC as laid down in the Canadian Broadcasting Act of 1936 are to formulate regulations controlling the establishment and operation of networks, the character of any and all programs broadcast in Canada and the proportion of time that may be devoted to advertising in broadcast programs. All radio stations in Canada come under the Department of Transport, Radio Division, for technical administration including frequency, operating power, etc., and are licensed by that authority.

At Sept. 1, 1949, there were operating in Canada 143 standard broadcast band stations, of which 18 were Canadian Broadcasting Corporation stations and 125 privately owned stations; also 34 short-wave stations, of which 26 were Canadian Broadcasting Corporation stations and eight privately owned stations. The number of radio receiving sets in Canada is probably not far below 3,000,000, or about one for every four persons in the population. Private receiving licences number about 2,057,000, many of which cover more than one set.

**Canadian Broadcasting Corporation.**—With the addition of four stations of the former Broadcasting Corporation of Newfoundland, the Canadian Broadcasting Corporation now operates 18 standard-band stations (seven of them with a power of 50,000 watts), five frequency modulation transmitters, and 19 low-power relay stations. The latter are satellite transmitters servicing communities not able to receive an adequate signal from a Canadian station, and not large enough to support their own local station. Further development of the plan for national coverage originally laid down in 1936 calls for a boost in power to 50,000 watts of CBC stations CBM, Montreal, and CBR, Vancouver, and the opening of a CBC outlet at Windsor, Ont. Work is now under way on these projects. The publicly owned stations, supplemented by privately owned affiliates, make CBC network service available to over 90 p.c. of Canada's population.

The CBC has been active in the development of frequency modulation. It operates two FM stations at Montreal, and one each at Toronto, Vancouver and Ottawa. The CBC has also been devoting much study to tele-

*The microphone is a very exacting master—it demands a maximum of precision as well as imagination. The radio actor, with his voice alone, must achieve what the actor on the legitimate stage achieves with the assistance of gesture, costume, make-up, pantomime and facial expression.*



vision, and plans to proceed with the development of that new medium in Canada just as soon as necessary financing can be arranged.

*Organization of the CBC.*—The Canadian Broadcasting Corporation is operated as a national public service. Policy is determined by a board of nine Governors who act as trustees of the national interest in broadcasting. The Governors are appointed by the Governor General in Council for three-year terms, and the Chairman is required to devote his full time to performance of his duties. They are chosen to give representation to the main geographical divisions of Canada and various facets of Canadian life. Direction of policy, day-to-day operations, and management of the system are the responsibility of the General Manager and Assistant General Manager. Revenue is derived from an annual licence fee of \$2.50 paid by listeners, and income from commercial operations.

As constituted under the Act, the CBC is designed to operate in the public interest. It is responsible to Parliament as a whole through a Minister of the Crown and from time to time the work of the Corporation is reviewed by a special Committee of the House of Commons.

*Operations.*—The CBC operates all radio networks in Canada; the Trans-Canada and Dominion Networks serve English-speaking listeners from coast to coast, and the French Network serves French-speaking listeners in the Province of Quebec. The Networks are made up from 18 CBC-owned and 87 privately owned stations located across Canada. The Trans-Canada has a maximum outlet of 61 stations; the Dominion a maximum of 45; and the French Network a maximum of 16. For occasional broadcasts of national interest the three networks are joined to form the National Network. In addition to these outlets, the CBC has pioneered in the development of low-powered repeater stations, which operate automatically with the Network, in remote areas of Canada. French-speaking listeners in northern Quebec and on the western prairies are served by short-wave stations, and another is used to reach listeners in the northern coastal regions and in the interior of British Columbia.

Short-wave receiving stations are maintained at Ottawa and Toronto, Ont., mainly for the reception of British Broadcasting Corporation transmissions. In order to improve reception from Australia and points in the Pacific area, a new short-wave receiving station is operated at Point Grey, near Vancouver, B.C.

*Program Service and Development.*—During the year ended Mar. 31, 1949, 63,869 programs were broadcast, taking up 19,792 hours of broadcast time, on the three CBC networks. Of the total hours, 80 p.c. were non-commercial service, an increase of 903 hours over the previous year. The CBC originated and produced 80 p.c. of all network broadcasts, private stations originated nearly 3 p.c. and the remaining 17 p.c. was made up of exchange programs from the British Broadcasting Corporation and United States networks.

Light and semi-classical music occupied the greatest number of hours, followed in order by dramatic and feature productions, news, classical music, agricultural programs, informative talks, educational and religious programs. Children's programs, broadcasts of sports events and sports résumés took up the remaining network time, in that order.





*The CBC Opera Company, formed in 1948, rehearses for the performance of "Peter Grimes".*

Network broadcasting in Canada is complicated by the fact that program service must be provided to listeners in six different time zones. In order to bring programs to listeners in each of the time zones at suitable hours, the CBC maintains regional production centres, with program, engineering and administrative staffs, at St. John's, Halifax, Montreal, Toronto, Winnipeg and Vancouver. Other CBC production points are maintained at Sydney, Chicoutimi, Quebec City, Ottawa and Edmonton. Decentralization makes it possible for the CBC to meet varying tastes and needs of listeners in the six regions, and to employ and develop local and regional talent. The emphasis, however, is on national radio.

A cardinal rule of CBC program planning is that program schedules should include radio fare to meet all tastes. Canadian talent is used to the fullest possible extent. Over 80 p.c. of all programs carried on CBC networks are Canadian in origin. The balance consists of programs which the CBC carefully chooses from other countries on the basis of listeners' preferences and needs. These programs are mostly of types not available within Canada and are chosen with the over-all program-balance picture in mind.

Because CBC felt many people were turning away from radio due to a certain type of program deficiency, the Corporation inaugurated an experimental series known as "CBC Wednesday Night" in December of 1947. This was a block of non-commercial programs broadcast for a full evening on

the Trans-Canada network and produced primarily for the discriminating listener. The experiment has been very successful and will be continued as a regular Trans-Canada network feature. "CBC Wednesday Night" has included works such as the *St. Matthew Passion* and *Messiah* broadcast in their entirety for the first time; the Benjamin Britten opera *Peter Grimes*, performed by the all-Canadian CBC Opera Company and especially presented for radio, plus many unusual dramas, outstanding recitalists and speakers.

*CBC International Service.*—In operating the International Service the CBC in effect acts as agent for the Government. Funds are voted specifically by Parliament for the purpose of maintaining this service and none of the revenues of the CBC for service to Canadian listeners are used. The policies of the International Service are laid down after consultation with the Department of External Affairs, and there is an Advisory Committee composed of representatives of the Corporation, of the Department of External Affairs and of the Department of Trade and Commerce.

Since its inception in February, 1945, the CBC International Service has expanded until now the "Voice of Canada" is heard abroad in twelve languages. Built and operated by the CBC on behalf of the Canadian Government, its transmitters, located near Sackville, N.B., send out the strongest signal heard in Europe from North America.

Operations during the year ended Mar. 31, 1949, involved approximately 4,800 hours of broadcasting including news, talks, music, interviews with foreign nationals visiting Canada as well as with Canadians who speak foreign languages, actualities, dramas, documentaries, international conference reports and commentaries, trade news and reviews, special programs in honor of national holidays, and periods when CBC International Service facilities were loaned without charge to the United Nations Radio Division for transmission of their material direct from Lake Success, New York.

### Postal Service

Postal service in Canada is provided from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont. (the most southerly point of Canada) to settlements and missions far within the Arctic. Points along Hudson Bay receive mail by steamer and by both air-stage and courtesy flights by aircraft.

The mails are carried by railway, air, motor-vehicle and inland and coastal steamer. The principal means of mail transportation is the railway mail service which operates along about 40,000 miles of track and covers an annual track mileage exceeding 45,733,000. The railway mail service employs a staff of 1,300 mail clerks who prepare the mail for prompt delivery and despatch while en route in railway mail cars.

Canada's air-mail system provides several flights daily from east to west and constitutes a great air artery from St. John's, Newfoundland, to Victoria, B.C., intersected with branch and connecting lines radiating to every quarter and linking up with the United States air-mail system. Since July 1, 1948, all first-class domestic mail up to and including one ounce in weight has been carried by air between one Canadian point and another, whenever delivery is thus facilitated. Air-stage service provides the sole means of communication with the outside for many remote areas. There are, altogether, approximately 19,000 miles of air-mail and air-stage routes in Canada.



Post Offices are established for the transaction of all kinds of postal business at places where the population warrants. Letter-carrier delivery, twice daily to residential districts and three times to business districts, is given in 105 towns and cities by some 5,000 letter carriers. An extensive organization distributes mail to the rural districts of the country: 4,943 rural mail routes are covered by mail couriers over 113,000 miles of territory, serving 348,000 rural mail boxes. Isolated points are served by motor-vehicle and stage services. The rural mail routes are laid out in circular patterns, each about 25 miles in circumference, and the couriers, who provide all the requisite equipment, are employed on the tender system.

The Post Office delivers an estimated 2,400,000,000 items of mail annually, and to do so utilizes the most up-to-date mechanical handling devices, including conveyor belts and electric cancelling machines, etc., in its larger offices. There were, in all, 11,930 post offices in operation across the country on Mar. 31, 1949. Money order offices numbered 7,614 and postal notes were sold in 10,830 post offices. For the year ended Mar. 31, 1949, postage paid by means of postage stamps amounted to \$56,303,157 and Post Office Savings Banks, in operation in all parts of the country, had combined deposits of \$37,741,389.

The increase in postal business is one of the impressive features of Canada's economic development during the past 15 years. From \$30,367,465 in 1934, the net income increased year by year to \$80,618,402 by Mar. 31, 1949, the gross revenue for the latter year being \$95,957,469, an all-time high.



*Post Office employees recording articles lost in the mails through improper packaging, incorrect or insufficient address and no identification as to sender.*





# Trade

## ★ Domestic Trade

THE diverse resources of the various parts of the country have led to a vast exchange of products and the task of providing goods and services where they are required for consumption or use by a population of 13,549,000, very unequally distributed over half a continent, accounts for a greater expenditure of economic effort than that required for the conducting of the nation's great volume of foreign trade, high though Canada ranks among the countries of the world in this field.

Domestic trade is broad and complicated, including as it does the transportation and distribution of goods within the country through the medium of railways, steamships, warehouses, wholesale and retail stores, and other agencies. It also includes all services such as those performed by doctors, hospitals, theatres, schools, banks, insurance companies and innumerable others. All such activities, even if not productive of material goods, add substantially to the national income.

Unfortunately, owing to the many ramifications of domestic trade, its statistical measurement presents great difficulties. Nevertheless, some idea of its extent may be gathered from the fact that, in 1948, the national income arising from productive operations was estimated at \$15,450,000,000, while the value of domestic exports was \$3,075,000,000 in that year.

### *Merchandising and Service Establishments*

The distribution of goods, at both the wholesale and retail levels, and the provision of those services that cater to the needs of Canadians as consumers, is a phase of the economy in which increasing interest is being shown. Its ramifications are extensive and not easily treated statistically because of the large number, and endless variety, of the business institutions involved. Distribution, in its many aspects, has been analysed statistically only in census years, the last of which was in 1941. Plans are under way for the conduct of the 1951 Census, the results of which will offer a valuable background for study of the changes in this field that took place between 1941 and 1951.

Retail stores absorb a large proportion of the consumer dollar, and it is the retail segment of the distribution structure that has received the most attention statistically. Current monthly and annual figures produced are estimates based on sampling methods which are under constant revision as new techniques are developed.

During the post-war period, merchandising has experienced many changes. A backlog of demand for many types of durable merchandise created by wartime shortages has now largely been met and shelves are plentifully stocked with a wide and attractive variety of merchandise. The anticipated return of brisk competitive conditions when some degree of normalcy returned created an awareness on the part of merchants of the need for improved selling methods, store modernization and layout, and more



*Quick cash-and-carry service is provided by most laundry and dry-cleaning establishments.*

attention to public relations and salesmanship than had been necessary for some years.

Projects designed to measure the number of businesses in existence have been undertaken and, although results are not yet available, there is evidence that the number of retail merchants in Canada was higher in 1948 and 1949 than the 137,331 stores which were in operation in 1941.

Canadians spent almost \$8,000,000,000 in retail stores during 1949 which marked the eleventh consecutive year in which retail trade moved upward. Per capita sales were in the neighbourhood of \$600 in 1949 compared with an estimated average national per capita expenditure of \$299 in 1941.

About one-sixth of all Canadian expenditures on goods is made in food stores. Total estimated sales of food stores were \$1,270,000,000 in 1949,\* of which \$300,000,000 was made by chain stores which are an important medium of distribution in the retail food trade in Canada. Department stores are also large-scale distribution organizations; they accounted for sales of

\* Such expenditures made in food stores are far from being the total expenditures on food. Foods are also sold in departmental stores, country general stores, etc. At p. 105 it will be seen that total expenditures on food are estimated at \$2,796,000,000 for 1948.



\$860,000,000 in 1949, including the mail-order sales made by the larger firms classified within the category. The following table summarizes the sales volumes for a few of the more important trades in 1941, 1948 and 1949<sup>1</sup>.

**Retail Store Sales, for Selected Kinds of Business, 1941, 1948 and 1949<sup>1</sup>**

| Selected Trades                   | Sales          |                |                   | P.C.<br>Change<br>1948-49 | P.C.<br>Change<br>1941-49 |
|-----------------------------------|----------------|----------------|-------------------|---------------------------|---------------------------|
|                                   | 1941           | 1948           | 1949 <sup>1</sup> |                           |                           |
|                                   | \$'000,000     | \$'000,000     | \$'000,000        |                           |                           |
| Grocery and combination.....      | 567.3          | 1,204.6        | 1,270.0           | + 5.4                     | +123.9                    |
| Department.....                   | 377.8          | 804.6          | 860.0             | + 6.9                     | +127.6                    |
| Motor-vehicle dealers.....        | 360.2          | 707.2          | 830.0             | +17.4                     | +130.4                    |
| Country general.....              | 213.3          | 451.6          | 450.0             | - 0.4                     | +111.0                    |
| Garages and filling stations..... | 205.1          | 386.3          | 430.0             | +11.3                     | +109.7                    |
| All other trades.....             | 1,713.1        | 3,722.1        | 3,880.0           | + 4.2                     | +126.5                    |
| <b>Totals<sup>1</sup>.....</b>    | <b>3,436.8</b> | <b>7,276.4</b> | <b>7,720.0</b>    | <b>+6.1</b>               | <b>+124.6</b>             |

<sup>1</sup> Exclusive of Newfoundland, Yukon and the Northwest Territories.

Although the prevailing trend of sales remains upward for most kinds of stores, increases have recently been more moderate than those experienced during the past several years. This is the case with such items as apparel, furniture and other types of household goods. In many cases, price increases account for all of the additional sales volumes being reported and physical turnover of many types of merchandise is therefore changing little compared with earlier years.

In the case of motor-vehicles, the post-war shortage has not yet been overcome. The demand for new motor-vehicles is still fairly substantial and there is no evidence that the market for new vehicles has yet stabilized. This has resulted in a marked expansion in sales by motor-vehicle dealers, their reports showing much larger sales increases than those of any other type of retail merchandiser.

Many of the motor-vehicles purchased immediately after the War were bought for cash, but there is an increasing tendency for a higher proportion of new vehicle sales to be made on the instalment plan.

*Sides of beef being moved from a cold-storage warehouse.*



## New Passenger-Car Sales and Financing, 1947, 1948 and 1949<sup>p</sup>

| Province           | 1947           |               |             | 1948           |               |             | 1949 <sup>p</sup> |               |             |
|--------------------|----------------|---------------|-------------|----------------|---------------|-------------|-------------------|---------------|-------------|
|                    | Sold           |               | Financed    | Sold           |               | Financed    | Sold              |               | Financed    |
|                    | No.            | No.           |             | No.            | No.           |             | No.               | No.           |             |
| Maritimes.....     | 12,232         | 2,223         | 18.2        | 11,142         | 2,510         | 22.5        | 15,400            | 4,900         | 31.8        |
| Quebec.....        | 28,833         | 6,463         | 22.4        | 26,266         | 7,164         | 27.3        | 36,400            | 12,200        | 33.5        |
| Ontario.....       | 73,160         | 11,593        | 15.8        | 67,000         | 12,927        | 19.3        | 88,400            | 22,600        | 25.6        |
| Manitoba.....      | 8,467          | 1,619         | 19.1        | 8,190          | 1,524         | 18.6        | 10,800            | 2,200         | 20.4        |
| Saskatchewan..     | 10,511         | 1,169         | 11.1        | 9,562          | 1,322         | 13.8        | 12,500            | 2,400         | 19.2        |
| Alberta.....       | 11,952         | 2,050         | 17.2        | 10,959         | 2,139         | 19.5        | 14,500            | 4,100         | 28.3        |
| Br. Columbia...    | 14,050         | 2,292         | 16.3        | 12,536         | 2,337         | 18.6        | 19,000            | 5,100         | 26.8        |
| <b>Totals.....</b> | <b>159,205</b> | <b>27,409</b> | <b>17.2</b> | <b>145,655</b> | <b>29,923</b> | <b>20.5</b> | <b>197,000</b>    | <b>53,500</b> | <b>27.2</b> |

**Chain Stores.**—Chain store sales in 1948 amounted to \$1,335,735,000, a gain of 13 p.c. over the 1947 sales volume of \$1,177,323,000. These 1948 sales made through a yearly average of 6,821 chain store units constituted 18 p.c. of all retail trade in Canada during 1948. Firms considered as 'chains' are those operating four or more stores under the same ownership with the exception of department stores. Department stores are classified as independants regardless of the number of stores operated.

### Chain Store Statistics, 1930 and 1941-48

| Year      | Stores  | Retail Sales | Salaries to Store Employees | Stocks on Hand, End of Year |            | Accounts Outstanding, End of Year |
|-----------|---------|--------------|-----------------------------|-----------------------------|------------|-----------------------------------|
|           |         |              |                             | Stores                      | Warehouses |                                   |
|           | Av. No. | \$'000       | \$'000                      | \$'000                      | \$'000     | \$'000                            |
| 1930..... | 8,097   | 487,336      | 50,405                      | 60,457                      | ..         | ..                                |
| 1941..... | 7,622   | 639,210      | 57,777                      | 68,619                      | 20,976     | 38,376                            |
| 1942..... | 7,010   | 687,447      | 57,654                      | 66,940                      | 22,633     | ..                                |
| 1943..... | 6,780   | 703,950      | 58,804                      | 67,628                      | 22,603     | 15,527                            |
| 1944..... | 6,560   | 769,643      | 63,300                      | 66,944                      | 21,855     | 15,093                            |
| 1945..... | 6,580   | 876,209      | 68,196                      | 68,247                      | 29,013     | 16,369                            |
| 1946..... | 6,559   | 1,014,847    | 77,474                      | 85,345                      | 37,436     | 19,643                            |
| 1947..... | 6,716   | 1,177,323    | 91,266                      | 105,041                     | 43,546     | 31,493                            |
| 1948..... | 6,821   | 1,335,735    | 107,450                     | 119,132                     | 46,330     | 40,378                            |

**Retail Consumer Credit.**—Current trends in retail consumer credit were first published by the Bureau of Statistics in 1948 showing the trends by half-year periods for ten trades up to December, 1947. At the beginning of 1948 the survey was extended to include 16 retail trades and was changed to a quarterly basis. Results are presented as a series of indexes based on 1941 sales and accounts receivable.

Consumer credit regulations administered by the Wartime Prices and Trade Board became effective on Oct. 14, 1941, and were maintained until Jan. 13, 1947. These controls seemed to help curb inflation and discourage the buying of goods in short supply by such techniques as limiting repayment periods of accounts outstanding and setting minimum down-payments on goods purchased on the instalment plan.



*Pulpwood, loaded on a freighter at Buctouche, N.B., is destined for the mill at Three Rivers, Que.*

These regulations had the effect of reducing the proportion of instalment sales which dropped from 11·4 p.c. of total sales in 1941 to a low of 4·1 p.c. in 1945 and climbed back to 8·1 p.c. by the first quarter of 1949. Cash sales and charge-account sales reached a high proportion in 1945 but these ratios have since been reduced gradually by increasing instalment purchases. Unpaid accounts from instalment sales were greatly reduced by the regulations and, since the relaxation of controls, have not increased to the same extent as have sales.

### *Retail Consumer Credit Statistics, 1941, 1948 and 1949*

| Period                  | Sales during Period |            |        |              | Accounts Receivable at end of Period |        |       |
|-------------------------|---------------------|------------|--------|--------------|--------------------------------------|--------|-------|
|                         | Cash                | Instalment | Charge | Total Credit | Instalment                           | Charge | Total |
| INDEXES—                |                     |            |        |              |                                      |        |       |
| 1941—Average.....       | 100·0               | 100·0      | 100·0  | 100·0        | 100·0                                | 100·0  | 100·0 |
| 1948—Jan.—Mar.....      | 166·1               | 99·2       | 165·1  | 145·9        | 79·2                                 | 125·1  | 108·0 |
| 1949—Jan.—Mar.....      | 170·2               | 111·4      | 170·3  | 153·2        | 107·4                                | 138·5  | 126·9 |
| PERCENTAGE COMPOSITION— |                     |            |        |              |                                      |        |       |
| 1941—Average.....       | 60·8                | 11·4       | 27·8   | 39·2         | 37·6                                 | 62·4   | 100·0 |
| 1948—Jan.—Mar.....      | 62·9                | 7·2        | 29·9   | 37·1         | 31·8                                 | 68·2   | 100·0 |
| 1949—Jan.—Mar.....      | 62·9                | 8·1        | 29·0   | 37·1         | 33·2                                 | 66·8   | 100·0 |



**Wholesale Trade.**—Monthly index numbers of sales in several branches of wholesale trade have been prepared since 1935. Indexes of sales (on the base, 1935-39=100) are calculated each month for nine wholesale trades, based on reports received from a sample of firms whose sales made up about 68 p.c. of the total volume of business done by wholesalers proper in those trades in 1941. The sample of reporting firms is limited to wholesalers proper, i.e., wholesale establishments that perform the complete functions of jobbers and wholesalers, buying merchandise in large quantities on their own account and selling in broken lots. In addition, the trades selected are those engaged principally in supplying retailers and include the following: automotive supply and equipment, drugs, clothing, footwear, dry goods, fruits and vegetables, groceries, hardware, and tobacco and confectionery.

The dollar volume of wholesale sales in Canada in 1948, measured by the composite index of sales in the nine lines of trade for which figures are available, was 4 p.c. higher than in 1947, 99 p.c. higher than in 1941, and 183 p.c. above the average for the base period, 1935-39. The average index unadjusted for price changes for the 12 months of 1948 (on the base, average for 1935-39=100) stood at 283.2 as compared with 272.0 for 1947 and 142.0 for 1941. Tobacco and confectionery and drug wholesalers, with gains of 12 p.c. and 11 p.c., respectively, were the only trades to register greater increases over 1947 than occurred in 1947 over 1946. Increases in these trades, however, were larger in the earlier part of the year than in the later part. In all other trades surveyed, there was some indication of the lowering of the rate of increase that has been in evidence over the past several years.

### *Annual Indexes of Wholesale Sales, by Types of Business, 1941 and 1944-49*

(1935-39 = 100)

| Type of Business                        | 1941         | 1944         | 1945         | 1946         | 1947         | 1948         | 1949<br>Jan.<br>to<br>Sept. | P.C.<br>Change<br>1948<br>from<br>1947 | P.C.<br>Change<br>Jan.-Sept.<br>1949<br>from<br>Jan.-Sept.<br>1948 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------------|--|--|
| Automotive equip-<br>ment.....          | 157.8        | 197.2        | 242.8        | 334.0        | 369.8        | 379.9        | 402.7                       | + 2.7                                  | + 6.0  |
| Drugs.....                              | 145.2        | 201.9        | 222.1        | 245.2        | 254.6        | 281.8        | 308.3                       | +10.7                                  | + 9.4  |
| Clothing.....                           | 142.8        | 183.1        | 186.3        | 229.3        | 255.4        | 265.1        | 250.5                       | + 3.8                                  | - 5.5  |
| Footwear.....                           | 141.6        | 188.8        | 224.0        | 279.4        | 300.8        | 286.8        | 285.9                       | - 4.7                                  | - 0.3  |
| Dry goods.....                          | 141.8        | 165.9        | 161.9        | 197.5        | 244.5        | 264.7        | 244.8                       | + 8.3                                  | - 7.5  |
| Fruits and vegetables                   | 131.2        | 222.0        | 262.4        | 291.2        | 274.7        | 237.2        | 273.7                       | -13.7                                  | +15.4  |
| Groceries.....                          | 134.7        | 169.3        | 180.2        | 208.9        | 244.2        | 254.0        | 259.1                       | + 4.0                                  | + 2.0  |
| Hardware.....                           | 165.2        | 183.8        | 212.0        | 277.4        | 325.0        | 359.7        | 382.4                       | +10.7                                  | + 6.3  |
| Tobacco and confec-<br>tionery.....     | 150.6        | 230.1        | 258.1        | 296.9        | 317.1        | 354.8        | 372.5                       | +11.9                                  | + 5.0  |
| <b>Totals, Wholesale<br/>Trade.....</b> | <b>142.0</b> | <b>186.0</b> | <b>205.4</b> | <b>244.0</b> | <b>272.0</b> | <b>283.2</b> | <b>295.4</b>                | <b>+ 4.1</b>                           | <b>+ 4.3</b>   |

In the first nine months of 1949, a further reduction in the upward movement of wholesale sales was indicated in most trades. Wholesale sales for the nine trades combined, however, advanced 4 p.c. over the dollar volume for the corresponding period of 1948. Dealers' sales of fruits and vegetables recovered from the recession that had continued throughout 1947 and 1948 and, in the first nine months of 1949, were 15 p.c. in excess of the sales for

the same period of 1948. Wholesalers' sales of footwear, clothing and dry goods were lower in dollar volume than in the corresponding period of 1948, with the other six trades registering moderate increases ranging between 2 p.c. and 9 p.c.

### *Co-operative Associations*

While the marketing of farm products is the major activity of co-operative associations in Canada, recent developments have focussed attention on the application of co-operative techniques and methods to other forms of economic endeavour. In British Columbia, fishermen have come together to market, process and sell their product at home and abroad. In that Province groups have been formed to provide transportation on a co-operative basis for industrial workers in certain areas of the interior. In Alberta there has been increased activity in the co-operative distribution of consumer goods and farm supplies, especially petroleum. In addition, there have been more than 75 rural electrification co-operatives organized in Alberta during the past two years.

In Saskatchewan, with considerable experience in marketing and purchasing, co-operative leaders are venturing into co-operative life insurance, flour milling, co-operative use of farm machinery, co-operative farming and co-operative production of furs and edible farm products.

Manitoba has made progress in supply and distribution of consumer goods and farm supplies. The Provincial Government has recently appointed a Director of Co-operative Services under the Minister of Agriculture. In Ontario, the provincial co-operative wholesale reorganized only a year ago and took a new name—United Co-operatives of Ontario. This Province has also taken the lead in the organization of co-operative plans for prepaid

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*An agricultural co-operative store in Quebec, typical of the 1,071 scattered across the country which reported a sales volume of \$50,000,000 in 1947.*



hospital care and there are now 41 such groups in the Province with 36,000 members.

Quebec has always been one of the major provinces in co-operative business and recently there has been great activity in the field of co-operative housing and rural electrification.

The Maritime Provinces are progressing in all fields with conspicuous success in co-operative housing and have recently set up a co-operative medical service in the mining areas of Cape Breton Island. Little information is available on co-operative development in the Province of Newfoundland but to date the main emphasis has been on credit unions and co-operative fish marketing.

For the crop year ended July 31, 1948, 2,249 co-operative organizations reported on their business which amounted to \$780,084,955. Membership recorded was 1,127,229. Associations marketing farm products numbered 1,123 and the value of their sales amounted to \$616,347,477. Co-operatives handling consumer goods and farm supplies reported sales of \$157,874,045. It is estimated that sales of farm products by co-operatives in Canada account for about 33 p.c. of all farm commodities entering into commercial trade channels. Sales of merchandise and farm supplies are still small in comparison to the business done by the marketing associations but in 1948 there was an increase of 24 p.c. over 1947. Some of this increase is, of course, attributable to an increase in the general level of prices but some is the result of more accurate returns by more co-operatives handling such goods.

**Retailing.**—Total sales volume of 631 co-operative retail stores in Canada for the year 1947-48 was reported as \$74,687,177. Approximately 50 p.c. of this amount was accounted for by sales of food products while sales of feed and fertilizer ranked second in volume with total reported sales of \$13,642,648. Sales of petroleum products through co-operatives amounted to \$7,879,409 and were made mainly in the three Prairie Provinces. Alberta alone reported sales of over \$3,000,000.

**Co-operative Wholesaling.**—Ten co-operative wholesales reported for the year 1947-48. They served 1,650 member associations and reported total sales of merchandise valued at \$42,096,580. Sales of farm products through these wholesales amounted to \$52,316,972. Total assets of the co-operative wholesales amounted to \$17,395,214. Plant value less allowance for depreciation was \$3,941,515 and members' equity totalled \$7,683,100.

**Manufacturing.**—Co-operatives have recently entered the field of manufacturing. Interprovincial Co-operatives, Limited, which is a federation of provincial and regional wholesales, now owns and operates a bag factory at Montreal. The Canadian Co-operative Implements, Limited, manufactures farm machinery at a plant at Winnipeg and the Saskatchewan Wheat Pool opened a flour mill at Saskatoon during 1948 which has a capacity of 1,000 bbl. per day. In Western Canada some co-operatives own coal mines and have recently ventured into exploration and drilling for oil. Seven successful wells are now co-operatively owned in Alberta.

**Insurance.**—Provision of fire insurance on a co-operative or mutual basis to farmers has been for years a major activity in this field. Within recent years, however, co-operatives in life insurance, automobile, live-stock transit, burglary and faithful performance have been organized throughout the country.



*Loading a coastal freighter  
at Fisherman's Co-operative  
Federation Dock,  
Vancouver, B.C.*



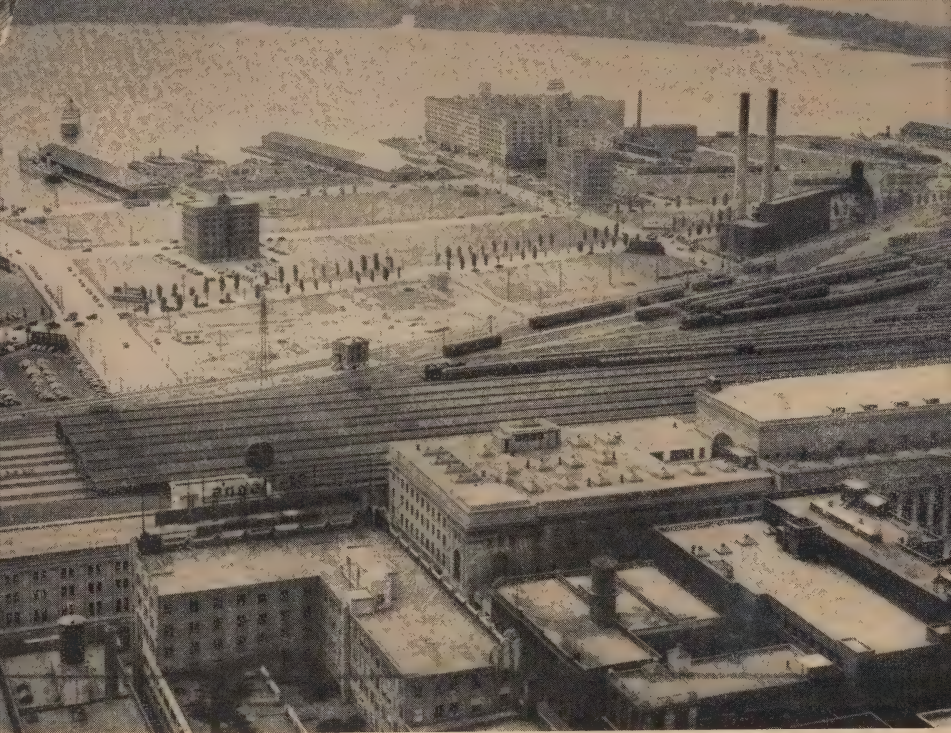
**Fishermen's Co-operatives.**—Co-operatives for the marketing of fish and fish products are found mainly in the Maritime Provinces and in British Columbia but recently there has been some interest in co-operative organization by fresh-water fishermen in Ontario, Manitoba and Saskatchewan. Total business done by 87 fishermen's co-operatives in Canada during 1947-48 amounted to \$16,959,389. Five large fish marketing and purchasing groups in British Columbia provided over 60 p.c. of this total.

**Credit Unions.**—In 1948 there were 2,608 credit unions in Canada with a membership of 850,608 and total assets amounting to \$253,584,282. Loans made during 1948 to members for provident and productive purposes amounted to \$130,285,237.

Most of these credit unions are grouped together into leagues or federations and they have also formed central credit unions as repositories for their surplus funds from which loans can be made to credit unions, to co-operatives and, in some cases, to individuals. There are 21 such central credit unions across the country—at least one in each province. There are eight in Quebec, three in Ontario, and two in New Brunswick. Total assets of these centrals at the end of 1948 amounted to \$30,595,011.

### *Wholesale Prices*

The general wholesale index is a measurement of commodity price change mainly at the production and primary distribution levels of the Canadian economy. It includes over 500 price series which are not restricted to the



*Toronto's railway yards, with the Union Station in the foreground and the terminal warehouse on the waterfront.*

wholesale level in the literal sense. The great majority represent commodities at terminal markets or processing plants. Items priced are for the most part either in the raw or semi-manufactured stage. Continuity in the pricing of finished goods presents formidable difficulties, although a considerable number of these are included. Commodity weights correspond to the base year value importance of the various items marketed, whether they are imported or produced in Canada.

Users of wholesale price indexes are frequently concerned with special groups or classes of commodities. Wholesale price indexes, therefore, have been constructed for numerous groups following the chief component material, origin and purpose principles of classification. Field and animal farm products may be compared, or farm and industrial commodities, producer and consumer goods, etc., as well as prices of individual commodities. Such indexes may be obtained upon request.

December, 1948, marked a turning point in the post-war advance of the general wholesale index. For that month, it stood at 159.6, after rising from 143.5 for December, 1947. In the first ten months of 1949, the index showed a general decline. During these months, prices were not consistent in their behaviour. While the majority moved downward, as indicated by the total



index, an appreciable group remained unchanged, and a number of others increased. Among the most important decreases were those registered by fats and oils, cocoa, wood-pulp, copper, lead, zinc and organic chemicals. The most important increases occurred in flour and bread, reflecting the removal of the flour subsidy.

The index of Canadian farm products followed a pattern similar to that of the general wholesale index.

### *Monthly Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, 1948 and 1949*

(1926 = 100)

| Year and Month | General Wholesale Prices | Canadian Farm Products | Year and Month          | General Wholesale Prices | Canadian Farm Products |
|----------------|--------------------------|------------------------|-------------------------|--------------------------|------------------------|
| <b>1939</b>    |                          |                        |                         |                          |                        |
| August.....    | 72.3                     | 58.4                   | November.....           | 159.4                    | 149.9                  |
|                |                          |                        | December.....           | 159.6                    | 148.9                  |
| <b>1948</b>    |                          |                        | <b>1949<sup>a</sup></b> |                          |                        |
| January.....   | 147.1                    | 147.7                  | January.....            | 159.3                    | 148.2                  |
| February.....  | 147.4                    | 145.7                  | February.....           | 158.1                    | 145.1                  |
| March.....     | 147.3                    | 145.1                  | March.....              | 157.6                    | 145.8                  |
| April.....     | 148.9                    | 148.1                  | April.....              | 157.5                    | 147.6                  |
| May.....       | 150.4                    | 151.0                  | May.....                | 156.4                    | 148.0                  |
| June.....      | 152.1                    | 155.2                  | June.....               | 156.3                    | 149.6                  |
| July.....      | 152.2                    | 154.2                  | July.....               | 156.6                    | 150.9                  |
| August.....    | 158.3                    | 151.2                  | August.....             | 155.5                    | 146.0                  |
| September..... | 158.4                    | 149.7                  | September.....          | 155.4                    | 145.7                  |
| October.....   | 159.3                    | 149.3                  | October.....            | 157.1                    | 145.0                  |

Door-to-door selling of attractively packaged staple foods has its advantages for both the consumer and the producer.





## Cost of Living

The Dominion Bureau of Statistics cost-of-living index measures the change in prices of goods and services purchased by typical Canadian urban wage-earner families. In terms of pre-war prices (1935-39=100), it records in percentage form the month-to-month changes in expenditure required to purchase a budget of goods and services based upon a 1938 study of actual expenditures of such families.

Price behaviour of consumer goods is of general interest and importance. Prices affect everyone in their daily living and, along with income, determine to a large extent both the quantity and quality of the things that people buy. The cost-of-living index is, therefore, of considerable significance to many individuals and organizations. Both labour and management use it extensively in wage negotiations and government officials also watch it closely.

Construction methodology and the data used in compiling the index have received wide publicity and details of construction may be obtained by writing to the Dominion Statistician. Basically, the index is compiled by multiplying constant quantities of goods and services (quantities purchased) by prices being charged to consumers on the first business day of each month. The resultant values for each budget item are added together and total dollar amounts divided by the average 1935-39 total. These figures are then multiplied by 100 to express them in index number form. The following example, using only two commodities, illustrates the procedure:—

| Item        | Budget<br>Quantity<br>(Weekly) | 1935-39          |                 | January, 1949    |                 |
|-------------|--------------------------------|------------------|-----------------|------------------|-----------------|
|             |                                | Average<br>Price | Average<br>Cost | Average<br>Price | Average<br>Cost |
|             | lb.                            | cts.             | cts.            | cts.             | cts.            |
| Bread.....  | 12.1                           | 6.4              | 77.44           | 9.6              | 116.16          |
|             | qt.                            |                  |                 |                  |                 |
| Milk.....   | 10.5                           | 10.6             | 111.30          | 17.6             | 184.80          |
| TOTALS..... | ...                            | ...              | 188.74          | ...              | 300.96          |

The January, 1949, index for the above two commodities is therefore  $300.96 \div 188.74 \times 100$  or 159.5.

The year 1949 has been a period of relative stability in consumer price levels. Opening at 159.6 in January, the cost-of-living index registered little change until July, when a rise to 162.1 occurred. This reflected mainly seasonal factors, notably advances in potatoes and eggs. The August index reached 162.8 but by September price recessions from previous seasonal peaks were sufficient to drop the index 0.5 points to 162.3. These movements were narrower than in any year since 1945 when wartime price controls were still generally in effect.

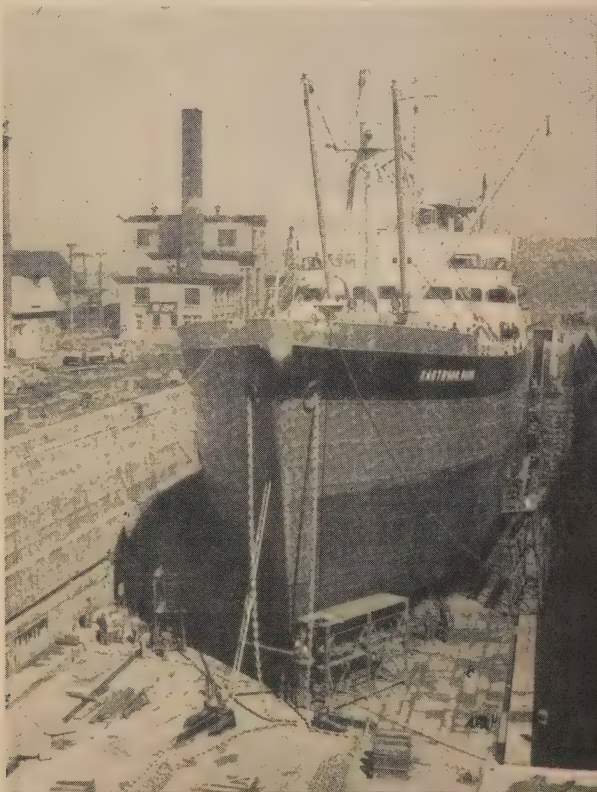
The relatively narrow change in the index over the past year is in sharp contrast to the behaviour of prices following the First World War. Then, post-war inflation culminated in a sharp peak reached in 1920. During that year, the cost-of-living index rose from 136.8 in January to 150.6 in July, and then fell steadily to 143.0 in December. The full decline was not completed, however, until the summer of 1922. Post-war experience since 1945 suggests that a considerably different pattern of price behaviour is materializing.

# Index Numbers of Living Costs, 1939-49, and by Months, 1949

(Av. 1935-39 = 100)

| Year and Month | Food  | Rent  | Fuel and Light | Clothing | Home Furnishings | Sundries | Total |
|----------------|-------|-------|----------------|----------|------------------|----------|-------|
| 1939.....      | 100·6 | 103·8 | 101·2          | 100·7    | 101·4            | 101·4    | 101·5 |
| 1940.....      | 105·6 | 106·3 | 107·1          | 109·2    | 107·2            | 102·3    | 105·6 |
| 1941.....      | 116·1 | 109·4 | 110·3          | 116·1    | 113·8            | 105·1    | 111·7 |
| 1942.....      | 127·2 | 111·3 | 112·8          | 120·0    | 117·9            | 107·1    | 117·0 |
| 1943.....      | 130·7 | 111·5 | 112·9          | 120·5    | 118·0            | 108·0    | 118·4 |
| 1944.....      | 131·3 | 111·9 | 110·6          | 121·5    | 118·4            | 108·9    | 118·9 |
| 1945.....      | 133·0 | 112·1 | 107·0          | 122·1    | 119·0            | 109·4    | 119·5 |
| 1946.....      | 140·4 | 112·7 | 107·4          | 126·3    | 124·5            | 112·6    | 123·6 |
| 1947.....      | 159·5 | 116·7 | 115·9          | 143·9    | 141·6            | 117·0    | 135·5 |
| 1948.....      | 195·5 | 120·7 | 124·8          | 174·4    | 162·6            | 123·4    | 155·0 |
| 1949.....      | 203·0 | 123·0 | 131·1          | 183·1    | 167·6            | 128·8    | 160·8 |
| 1949—          |       |       |                |          |                  |          |       |
| January.....   | 202·2 | 121·7 | 130·0          | 181·9    | 167·0            | 126·6    | 159·6 |
| February.....  | 200·4 | 121·7 | 130·8          | 181·8    | 167·8            | 128·1    | 159·5 |
| March.....     | 199·1 | 121·7 | 131·0          | 182·7    | 167·9            | 128·1    | 159·2 |
| April.....     | 198·5 | 122·4 | 131·0          | 183·2    | 168·0            | 128·4    | 159·3 |
| May.....       | 199·5 | 122·4 | 129·1          | 183·3    | 168·1            | 128·4    | 159·5 |
| June.....      | 202·9 | 122·4 | 128·7          | 183·3    | 167·7            | 128·4    | 160·5 |
| July.....      | 207·2 | 123·4 | 129·1          | 183·3    | 167·5            | 128·5    | 162·1 |
| August.....    | 209·2 | 123·4 | 129·5          | 183·2    | 167·4            | 128·9    | 162·8 |
| September..... | 207·0 | 123·9 | 130·1          | 183·5    | 167·4            | 128·9    | 162·3 |
| October.....   | 205·0 | 123·9 | 134·1          | 184·1    | 167·2            | 130·2    | 162·2 |
| November.....  | 203·3 | 123·9 | 135·1          | 183·7    | 167·4            | 130·2    | 161·7 |
| December.....  | 201·9 | 125·0 | 135·2          | 183·7    | 167·1            | 130·5    | 161·5 |

Dry dock at Lauzon, Que.







## ★ Foreign Trade\*

In spite of increasing difficulties in international trade, Canadian trade, due to high levels of production, consumption and prices, succeeded in 1948 in mastering temporarily many of the difficulties encountered, as far as the general result is concerned. Influenced by the policies adopted, by making use of the expanding market in the United States, and with overseas purchases partly sustained by the European Recovery Program, total trade attained unprecedented high levels; in comparison with the year 1938, the total trade turnover increased 3·8 times (imports 3·9, exports 3·7 times). The average amount of transactions per calendar day of \$4,200,000 in 1938, increased to \$15,700,000 in 1948.

In value, the level of imports attained an all-time high. The peak for exports was in the years 1944 and 1945 because of the large outflow of war materials. For the peace years, however, the 1948 exports were at an all-time high. In that year, Canada, for the first time in peace years, ranked as the first country in both exports and imports of the United States and in imports of the United Kingdom.

The prices of goods, because of the general rise in price levels, were influenced by strong upward tendencies. Price indexes show that the prices of imported goods increased 13 p.c. on the average, whereas the rise in prices of exported goods was 10 p.c.

With the price levels of exported goods rising more slowly than the prices of imports, the terms of trade underwent an unfavourable change in contrast to the previous year. If the prices in 1938 were to be compared on a barter basis, assuming that for every 100 units of exports, 100 units of imports were obtained in 1938, these terms became somewhat more favourable in 1946, when 100 units of exports obtained 102·5 units of imports. This figure decreased to 101·3 in 1947. In 1948, the relative buying power of exports weakened and 100 units of exports were worth only 97·5 units of imports. This general relationship, of course, varied in the group and item prices movement.

Most notable in 1948 was the unprecedented increase in trade with the United States. Imports from that country accounted for 68 p.c. of the total, a reduction from 77 p.c. in the previous year. At the same time exports rose to an all-time high of 48 p.c. accompanied by declines in exports to the Sterling Area and European countries. This concentration of trade with one single country has rare counterparts in world trade.

**Volume of Trade.**—New comprehensive indexes of import and export prices have been computed by the Dominion Bureau of Statistics for the commodity groups and for single important commodities. Using these indexes as deflators, the volume indexes calculated show that on the average the volume of imports in 1947 equalled 199·5 (1938=100). In relation to this doubling of the pre-war volume, the year 1948 showed a drop of 9·3 p.c. (18·5 points) and the import volume for that year was estimated at 181 only. According to the same methods, the export volume for 1947 may be estimated at 171, from which position the 1948 exports showed an increase of 0·9 p.c. (1·5 points), resulting in an average volume of about 173.

\* This material is summarized from the report "Review of Foreign Trade, 1948", published by the Dominion Bureau of Statistics, Ottawa Price 75 cents.

These estimates show that the real or physical volume of trade in comparison with 1938 has not quite doubled, standing at 1·8 and 1·7, respectively. Nevertheless an increase of such proportions in a decade is remarkable.

**Trade Policy.**—Canada took an active part in the Geneva Conference, as a result of which tariff reductions were accorded by various countries. These reductions, especially (from the Canadian point of view) those of the United States, had a favourable effect on the development of exports.

Along with the contraction of trade with Europe and the countries of the Sterling Area, accompanying newly introduced restrictions in many overseas countries, the major influence on foreign trade was exerted by two important policy measures. (1) The emergency exchange conservation program of the Canadian Government, continued throughout the year, restricted the imports affecting Canada's dollar position from the United States and other countries not short of dollars: its prohibitions and quotas affected some 300 items and were instrumental in holding back or changing the source of supply of these imports. (2) The embargoes on exports of cattle, meat and coarse grains to the United States were lifted. These measures decisively reversed the position of trade and changed its direction.

Another important influence was the Marshall Plan. This enabled Western Europe to maintain a level of consumption and imports that would otherwise have been impossible, and this affected Canadian trade. Canadian credits to overseas countries, of course, were also a factor. Even with this financial assistance overseas purchases from Canada were reduced.

In the field of manufactured products, most spectacular, though non-recurring, was the contribution of Canadian shipyards. Shipbuilding and repairing were very low in 1938, and the value of exported ships in 1948 represented an increase of 407 times, proportionately the largest increase among principal products. This increase was due, however, to a concentration of deliveries under building contracts for France, Brazil and China, and cannot be maintained.

Farm-machinery exports increased tenfold and all other machinery fourfold. Among other metals, the highest increase (18-fold) was shown by ferro-alloys. Rolling-mill products and non-ferrous metals, zinc and its products, and lead and its products, increased from four to fivefold. Such increases for this year were outstanding because the general exports of non-ferrous metals and products, although increased in value, dropped almost 50 p.c. in their proportional importance. The increases of zinc and lead were, of course, due to the short-lived inflationary rise in prices.



*Coffee beans newly arrived at Montreal from Brazil.*





*Canadian Government Exhibition Commission display at the British Industries Fair, London, England, showing the flow of goods from the United Kingdom to Canada and the location of Canada's natural resources.*

While some of these increases are temporary, many of them are quite characteristic of new trends in Canadian exports which show a certain diversification as compared with 1938. Farm machinery and many minerals and their products, for instance, have already a firm market in the United States, while cattle, the commodity most dependent on that market, was exported there almost exclusively. Large proportions of metals and fertilizers were also directed to the United States.

At the same time, the loss of vital markets to some of Canada's manufacturing industries, like automobiles, due to restrictions in the Sterling Area and elsewhere, has not yet found an alternative solution. The diversification in the agricultural products was greater than in 1947, although some of these exports might be of a temporary character, and the overseas markets for some commodities have either disappeared or been sharply reduced. The well-developed trend during the four decades before the War to export more in the form of finished products appears reversed, at least temporarily.

Imports from the United Kingdom also increased. This tendency is one of the basic aims of the United Kingdom economic policies and is considered most necessary also in this country. Imports from Latin America, though not so large in absolute amounts, increased proportionally 14 times the amount of 1938 due mainly to increased purchases of petroleum from Venezuela.





Goods in transit  
piled in a Canadian Pacific  
Steamship warehouse.

## Imports, Exports and Total Trade of Canada, 1938-49<sup>1</sup>

(Millions of Dollars)

| Year                    | Imports | Exports             |                    |         | Total<br>Trade | Excess<br>Exports |
|-------------------------|---------|---------------------|--------------------|---------|----------------|-------------------|
|                         |         | Domestic<br>Produce | Foreign<br>Produce | Total   |                |                   |
| 1938.....               | 677.5   | 837.6               | 11.1               | 848.7   | 1,526.2        | + 171.2           |
| 1939.....               | 751.1   | 924.9               | 11.0               | 935.9   | 1,687.0        | + 184.8           |
| 1940.....               | 1,082.0 | 1,178.9             | 14.3               | 1,193.2 | 2,275.2        | + 111.2           |
| 1941.....               | 1,448.8 | 1,621.0             | 19.5               | 1,640.5 | 3,089.3        | + 191.7           |
| 1942.....               | 1,644.2 | 2,363.8             | 21.7               | 2,385.5 | 4,029.7        | + 741.3           |
| 1943.....               | 1,735.1 | 2,971.5             | 29.8               | 3,001.3 | 4,736.4        | +1,266.2          |
| 1944.....               | 1,758.9 | 3,440.0             | 43.1               | 3,483.1 | 5,242.0        | +1,724.2          |
| 1945.....               | 1,585.8 | 3,218.3             | 49.1               | 3,267.4 | 4,853.2        | +1,681.6          |
| 1946.....               | 1,927.3 | 2,312.2             | 27.0               | 2,339.2 | 4,266.4        | + 411.9           |
| 1947.....               | 2,573.9 | 2,774.9             | 36.9               | 2,811.8 | 5,385.7        | + 237.9           |
| 1948.....               | 2,636.9 | 3,075.4             | 34.6               | 3,110.0 | 5,747.0        | + 473.1           |
| 1949 <sup>1</sup> ..... | 2,073.9 | 2,146.0             | 21.0               | 2,167.0 | 4,241.0        | + 93.1            |

<sup>1</sup> First nine months.

## Exports

The basic structure of Canadian exports, consisting predominantly of large quantities of specialized products, has not changed during the past twelve years. The table of principal exports, reduced to 31 commodities (p. 252), shows even a little more advanced concentration (from 79.5 in 1938 to 81.7 in 1948).

Newsprint, paper and wood-pulp were nearly 17 p.c. of exports in 1938 and increased to 20 p.c. in 1948. If to this were added lumber (planks and boards) as well as pulpwood, the share of bulky forest products is found to exceed 28 p.c. in 1948. With the further addition of the most important agricultural export—wheat and wheat flour—the share of the principal large items appears to have increased from 36 p.c. in 1938 to 40 p.c. in 1948, with an even higher proportion (45 p.c.) in 1947.

## Exports, by Stage of Production, 1938-48

(Values in Millions of Dollars)

| Year <sup>1</sup>       | Raw Materials |                       | Partly Manufactured |                       | Fully or Chiefly Manufactured |                       | Total Value |
|-------------------------|---------------|-----------------------|---------------------|-----------------------|-------------------------------|-----------------------|-------------|
|                         | Value         | P.C. of Total Exports | Value               | P.C. of Total Exports | Value                         | P.C. of Total Exports |             |
| 1938.....               | 277           | 28.4                  | 269                 | 27.5                  | 430                           | 44.1                  | 977         |
| 1939.....               | 231           | 27.8                  | 221                 | 26.6                  | 379                           | 45.6                  | 831         |
| 1939 <sup>1</sup> ..... | 274           | 29.6                  | 247                 | 26.7                  | 404                           | 43.7                  | 925         |
| 1940.....               | 261           | 22.1                  | 337                 | 28.6                  | 581                           | 49.3                  | 1,179       |
| 1941.....               | 322           | 19.9                  | 427                 | 26.3                  | 872                           | 53.8                  | 1,621       |
| 1942.....               | 300           | 12.7                  | 488                 | 20.6                  | 1,577                         | 66.7                  | 2,364       |
| 1943.....               | 519           | 17.5                  | 498                 | 16.7                  | 1,955                         | 65.8                  | 2,971       |
| 1944.....               | 764           | 22.2                  | 488                 | 14.2                  | 2,188                         | 63.6                  | 3,440       |
| 1945.....               | 858           | 26.7                  | 536                 | 16.6                  | 1,824                         | 56.7                  | 3,218       |
| 1946.....               | 603           | 26.1                  | 512                 | 22.1                  | 1,197                         | 51.8                  | 2,312       |
| 1947.....               | 645           | 23.3                  | 722                 | 26.0                  | 1,408                         | 50.7                  | 2,775       |
| 1948.....               | 812           | 26.4                  | 818                 | 26.6                  | 1,445                         | 47.0                  | 3,075       |

<sup>1</sup> Figures for 1938 and 1939 are for the years ended Mar. 31; those for 1939 to 1948 are for calendar years.

## Exports, by Leading Countries, 1938 and 1946-49<sup>1</sup>

Note.—Countries arranged in order of importance in 1948.

| Rank in—                              |      |      | Country                   | 1938    | 1946      | 1947      | 1948      | 1949 <sup>1</sup>   |
|---------------------------------------|------|------|---------------------------|---------|-----------|-----------|-----------|---------------------|
| 1938                                  | 1946 | 1947 |                           |         |           |           |           |                     |
|                                       |      |      |                           | \$'000  | \$'000    | \$'000    | \$'000    | \$'000              |
| 2                                     | 1    | 1    | United States.....        | 270,461 | 887,941   | 1,034,226 | 1,500,987 | 1,024,304           |
| 1                                     | 2    | 2    | United Kingdom..          | 339,689 | 597,506   | 751,198   | 686,914   | 525,989             |
| 10                                    | 3    | 3    | France.....               | 9,152   | 74,380    | 81,058    | 92,963    | 31,690              |
| 7                                     | 4    | 4    | British South Africa..... | 15,547  | 68,633    | 67,139    | 83,860    | 63,393              |
| 11                                    | 8    | 7    | Newfoundland.....         | 8,403   | 38,229    | 55,085    | 55,055    | 9,229 <sup>2</sup>  |
| 8                                     | 10   | 6    | Netherlands.....          | 10,267  | 33,883    | 55,940    | 43,684    | 9,699               |
| 21                                    | 6    | 9    | India.....                | 2,863   | 49,046    | 42,947    | 41,473    | 58,593              |
| 3                                     | 9    | 5    | Australia.....            | 32,982  | 38,194    | 60,294    | 38,257    | 25,765              |
| 9                                     | 5    | 8    | Belgium.....              | 9,555   | 63,626    | 52,749    | 33,035    | 37,434 <sup>2</sup> |
| 27                                    | 13   | 11   | Italy.....                | 1,745   | 20,387    | 35,688    | 32,379    | 8,399               |
| 20                                    | 7    | 12   | China.....                | 2,885   | 42,915    | 34,984    | 29,128    | 12,162              |
| 18                                    | 11   | 14   | Brazil.....               | 3,522   | 24,602    | 31,660    | 28,601    | 14,130              |
| 12                                    | 14   | 16   | Norway.....               | 7,854   | 19,267    | 20,320    | 23,429    | 16,538              |
| 46                                    | 30   | 21   | Switzerland.....          | 736     | 8,636     | 14,196    | 19,389    | 20,916              |
| 6                                     | 17   | 10   | New Zealand.....          | 16,371  | 16,110    | 37,386    | 18,375    | 10,323              |
| 17                                    | 15   | 15   | Trinidad and Tobago.....  | 3,714   | 19,140    | 26,354    | 17,105    | 10,197              |
| 36                                    | 21   | 23   | Venezuela.....            | 1,256   | 11,086    | 12,989    | 16,935    | 18,069              |
| 14                                    | 20   | 13   | Argentina.....            | 4,675   | 14,039    | 31,697    | 16,680    | 2,179               |
| 23                                    | 23   | 24   | Mexico.....               | 2,340   | 10,536    | 11,701    | 15,045    | 10,484              |
| 5                                     | 34   | 37   | Germany.....              | 18,261  | 6,867     | 6,690     | 13,214    | 22,093              |
| 15                                    | 18   | 17   | Jamaica.....              | 4,442   | 15,500    | 18,214    | 12,350    | 6,810               |
| 19                                    | 24   | 22   | Czechoslovakia.....       | 3,164   | 9,871     | 13,779    | 11,395    | 2,478               |
| 37                                    | 37   | 32   | Cuba.....                 | 1,186   | 5,270     | 7,502     | 10,987    | 9,626               |
| 51                                    | 19   | 25   | Egypt.....                | 396     | 15,086    | 10,922    | 10,205    | 4,275               |
| 30                                    | 29   | 26   | Philippine Islands.       | 1,465   | 8,901     | 10,448    | 9,810     | 9,132               |
| 28                                    | 25   | 40   | Greece.....               | 1,565   | 9,738     | 5,440     | 9,663     | 1,920               |
| 22                                    | 46   | 33   | British Malaya.....       | 2,448   | 3,224     | 7,464     | 9,288     | 4,606               |
| 16                                    | 32   | 18   | Ireland.....              | 4,439   | 7,956     | 17,598    | 9,257     | 6,001               |
| 35                                    | 28   | 28   | Colombia.....             | 1,270   | 8,930     | 9,950     | 8,406     | 5,907               |
| 24                                    | 39   | 38   | Hong Kong.....            | 2,223   | 4,362     | 6,398     | 8,256     | 6,649               |
| Totals, Above Countries.....          |      |      |                           | 784,876 | 2,133,861 | 2,572,016 | 2,906,125 | 1,988,990           |
| Grand Totals, Exports (Domestic)..... |      |      |                           | 837,584 | 2,312,215 | 2,774,902 | 3,075,438 | 2,146,025           |

<sup>1</sup> First nine months.

<sup>2</sup> January–March, 1949.

<sup>3</sup> Includes Luxembourg.



Canadian Pacific  
liner "Beaver Glen"  
discharging cargo  
at the Royal Victoria  
Dock, London,  
England.

### Principal Exports, 1938 and 1946-49<sup>1</sup>

Note.—Commodities arranged in order of importance in 1948.

| Commodity  | 1938           | 1946             | 1947             | 1948             | 1949 <sup>1</sup> |
|--|----------------|------------------|------------------|------------------|-------------------|
|  | \$'000         | \$'000           | \$'000           | \$'000           | \$'000            |
| Newsprint.....                                   | 104,615        | 265,865          | 342,293          | 383,123          | 310,180           |
| Wheat.....                                       | 89,394         | 250,306          | 265,200          | 243,023          | 312,273           |
| Wood-pulp.....                                   | 27,731         | 114,021          | 177,803          | 211,564          | 124,796           |
| Planks and boards.....                           | 35,887         | 125,391          | 208,375          | 196,023          | 108,611           |
| Wheat flour.....                                 | 17,638         | 126,733          | 196,578          | 125,151          | 74,440            |
| Aluminum and products.....                       | 23,744         | 56,030           | 63,956           | 102,046          | 73,247            |
| Fish and fishery products.....                   | 26,530         | 86,486           | 82,359           | 85,028           | 62,255            |
| Ships and vessels.....                           | 218            | 18,822           | 23,965           | 81,448           | 36,603            |
| Copper and products.....                         | 53,315         | 37,005           | 59,298           | 79,036           | 65,889            |
| Grains, other than wheat.....                    | 12,892         | 44,724           | 50,103           | 75,321           | 29,009            |
| Cattle.....                                      | 9,232          | 18,015           | 14,980           | 73,899           | 36,054            |
| Nickel.....                                      | 52,496         | 55,205           | 60,443           | 73,802           | 70,367            |
| Farm machinery and implements                    | 7,790          | 28,662           | 42,238           | 73,760           | 78,452            |
| Bacon and hams.....                              | 30,906         | 66,389           | 62,081           | 69,960           | 10,941            |
| Meats, other than bacon and<br>hams.....         | 5,403          | 62,547           | 40,776           | 63,399           | 26,211            |
| Automobiles, trucks and parts...                 | 24,914         | 78,304           | 91,639           | 55,086           | 29,536            |
| Seeds.....                                       | 3,011          | 13,228           | 16,693           | 49,748           | 26,552            |
| Pulpwood.....                                    | 13,642         | 28,731           | 34,529           | 43,573           | 23,107            |
| Zinc and products.....                           | 9,816          | 27,769           | 30,193           | 42,496           | 42,215            |
| Asbestos and products.....                       | 13,317         | 24,481           | 32,969           | 41,979           | 22,303            |
| Machinery, except farm.....                      | 9,783          | 15,535           | 41,022           | 40,539           | 23,565            |
| Eggs, shell and processed.....                   | 498            | 26,772           | 36,968           | 39,163           | 13,650            |
| Fertilizers.....                                 | 7,066          | 32,108           | 34,386           | 36,374           | 30,211            |
| Lead and products.....                           | 8,983          | 16,846           | 30,945           | 34,684           | 31,368            |
| Paper, other than newsprint....                  | 8,258          | 21,573           | 30,840           | 33,559           | 14,978            |
| Rubber and products.....                         | 14,905         | 22,477           | 33,125           | 33,151           | 20,382            |
| Alcoholic beverages.....                         | 10,942         | 36,296           | 28,478           | 29,278           | 24,604            |
| Precious metals, except gold....                 | 22,955         | 21,469           | 22,581           | 25,478           | 20,426            |
| Furs and products.....                           | 14,097         | 32,291           | 29,048           | 24,118           | 17,400            |
| Ferro-alloys.....                                | 1,306          | 9,485            | 21,545           | 24,057           | 16,032            |
| Rolling-mill products.....                       | 4,769          | 7,528            | 10,935           | 23,773           | 10,146            |
| <b>Totals, Above Commodities</b>                 | <b>666,053</b> | <b>1,771,094</b> | <b>2,216,344</b> | <b>2,513,639</b> | <b>1,785,803</b>  |
| <b>Grand Totals, Exports<br/>(Domestic).....</b> | <b>837,584</b> | <b>2,312,215</b> | <b>2,774,902</b> | <b>3,075,438</b> | <b>2,146,025</b>  |

<sup>1</sup> First nine months.



## Imports

The range of goods imported is much more complex than that of exports. The number of statistical categories included in the imports in the latest publications of the Dominion Bureau of Statistics consists of more than 2,200 items as against about 850 in the exports. But for purposes of comparison, this whole variety of goods may be usefully concentrated to a small list. In fact, the table on p. 255 with its 30 items, contains almost all important single commodities. Many others are, of course, sum-totals of sub-items of commodity groups.

In the year 1938, these 30 commodities amounted to nearly 69 p.c. of total imports. Similar proportions in 1947 and 1948 were 73 and 76 p.c., respectively. From this, it might be concluded that the general pattern of essential imports is not only being maintained but the concentration is even more apparent during the latest years.

### Percentages of the Largest Imports to Total Imports, 1938 and 1947-49<sup>1</sup>

Note.—Commodities in order of importance in 1948.

| Item                               | 1938        | 1947        | 1948        | 1949 <sup>1</sup> |
|------------------------------------|-------------|-------------|-------------|-------------------|
|                                    | p.c.        | p.c.        | p.c.        | p.c.              |
| Petroleum and products.....        | 8.2         | 8.0         | 11.4        | 9.6               |
| Machinery, except farm.....        | 5.4         | 8.0         | 8.2         | 7.9               |
| Coal and products.....             | 5.8         | 6.0         | 7.8         | 5.7               |
| Farm implements and machinery...   | 3.0         | 4.1         | 5.3         | 6.8               |
| Cotton and manufactures.....       | 4.4         | 7.0         | 5.1         | 5.1               |
| Automobiles, trucks and parts..... | 5.5         | 6.5         | 4.9         | 5.9               |
| Wool and manufactures.....         | 3.7         | 3.3         | 4.4         | 4.0               |
| <b>Totals.....</b>                 | <b>36.0</b> | <b>42.9</b> | <b>47.1</b> | <b>45.0</b>       |

<sup>1</sup> First nine months.

Analysis reveals that these key products are mostly producer goods, being either producer equipment (farm implements and machinery, and other types of machinery), materials for auxiliary use in industry and direct consumption (petroleum and products, coal and products), or producer materials

Molasses from Barbados on the wharf at Quebec.



and related goods (cotton and manufactures, wool and manufactures). To these materials are added transportation means (automobiles, trucks and parts) which also pertain more to the producer or durable than to consumer goods.

On the other hand, imports of consumer goods were definitely reduced by the restrictions and quotas on imports from ten countries (mainly from the United States). These restrictions led to these countries acquiring a sub-normal proportion of the total, as well as to the changing of the sources of goods imported under quota.

Analyzing the imports by groups, the most far-reaching increase was found in the non-metallic minerals and products group, the 1948 figure being about five times that of 1938 and 50 p.c. higher than the 1947 total. This advance was due to increases in the imports of coal and petroleum and products. The increase in iron and its products group was almost entirely due to the increases of farm implements and machinery.

All other groups, especially agricultural products, fibres and textiles, and miscellaneous commodities, decreased in volume more than the figures of value suggest because of increases in prices. Most of these decreases were the result of import restrictions on consumer goods imported from the United States.

### *Imports, by leading Countries, 1938 and 1946-49<sup>1</sup>*

Note.—Countries arranged in order of importance in 1948.

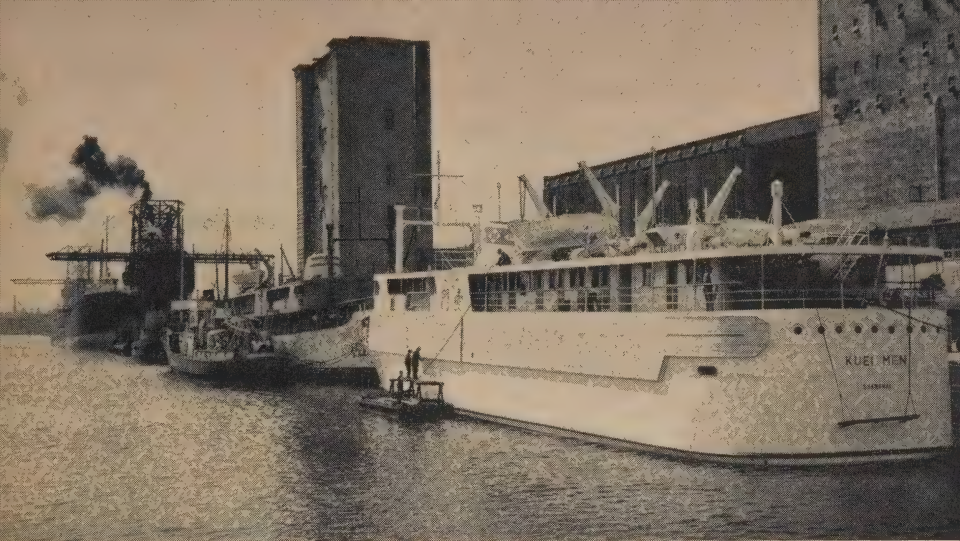
| Rank in—                     |      |      | Country                   | 1938    | 1946      | 1947      | 1948      | 1949 <sup>1</sup>   |
|------------------------------|------|------|---------------------------|---------|-----------|-----------|-----------|---------------------|
| 1938                         | 1946 | 1947 |                           |         |           |           |           |                     |
|                              |      |      |                           | \$'000  | \$'000    | \$'000    | \$'000    | \$'000              |
| 1                            | 1    | 1    | United States.....        | 424,731 | 1,405,297 | 1,974,679 | 1,805,763 | 1,470,583           |
| 2                            | 2    | 2    | United Kingdom...         | 119,292 | 201,433   | 189,370   | 299,502   | 240,713             |
| 30                           | 4    | 3    | Venezuela.....            | 1,469   | 26,886    | 46,688    | 94,758    | 68,314              |
| 6                            | 3    | 4    | India.....                | 8,181   | 27,877    | 42,250    | 34,706    | 20,340              |
| 5                            | 5    | 9    | Australia.....            | 9,044   | 19,754    | 14,222    | 27,415    | 17,626              |
| 37                           | 7    | 7    | Mexico.....               | 576     | 14,610    | 16,980    | 27,258    | 13,888              |
| 40                           | 10   | 5    | Cuba.....                 | 440     | 13,228    | 23,751    | 22,606    | 4,197               |
| 3                            | 19   | 8    | British Malaya....        | 10,278  | 5,871     | 16,908    | 21,878    | 13,126              |
| 34                           | 9    | 10   | Brazil.....               | 769     | 14,018    | 13,888    | 20,559    | 13,574              |
| 106                          | 21   | 21   | Dominican Republic.....   | 2       | 7,127     | 8,186     | 17,270    | 3,775               |
| 7                            | 11   | 11   | British Guiana....        | 7,113   | 12,187    | 12,358    | 15,380    | 13,429              |
| 10                           | 25   | 15   | Belgium.....              | 6,181   | 4,429     | 10,120    | 13,661    | 14,890 <sup>3</sup> |
| 11                           | 23   | 19   | France.....               | 6,105   | 4,610     | 8,755     | 12,648    | 9,915               |
| 13                           | 12   | 14   | New Zealand.....          | 4,562   | 11,956    | 10,831    | 11,603    | 7,276               |
| 15                           | 28   | 13   | Ceylon.....               | 3,679   | 3,745     | 11,653    | 11,182    | 9,145               |
| 24                           | 16   | 17   | Newfoundland....          | 2,194   | 9,268     | 9,427     | 11,091    | 9,184               |
| 36                           | 21   | 26   | Gold Coast.....           | 631     | 5,381     | 6,493     | 9,751     | 5,965               |
| 68                           | 64   | 42   | Denmark.....              | 174     | 157       | 1,455     | 9,585     | 1,515               |
| 9                            | 14   | 27   | Jamaica.....              | 6,192   | 10,484    | 6,371     | 9,557     | 14,072              |
| 29                           | 29   | 24   | British East Africa.      | 1,735   | 3,603     | 7,683     | 9,543     | 2,361               |
| 23                           | 26   | 28   | Trinidad and Tobago.....  | 2,352   | 4,137     | 5,654     | 9,027     | 13,370              |
| 8                            | 15   | 18   | Colombia.....             | 6,903   | 9,708     | 9,197     | 8,668     | 8,714               |
| 21                           | 31   | 31   | Fiji.....                 | 2,394   | 3,123     | 4,178     | 8,275     | 5,599               |
| 60                           | 22   | 16   | Guatemala.....            | 85      | 2,928     | 9,488     | 8,209     | 4,647               |
| 16                           | 13   | 12   | Switzerland.....          | 3,488   | 11,149    | 11,941    | 7,444     | 6,597               |
| 108                          | 30   | 20   | Netherlands Antilles..... | 2       | 3,186     | 8,648     | 7,286     | 2,128               |
| 18                           | 33   | 32   | Italy.....                | 2,631   | 2,704     | 3,872     | 6,981     | 6,862               |
| 41                           | 38   | 22   | Philippine Islands.       | 386     | 2,058     | 8,063     | 6,442     | 2,854               |
| 26                           | 20   | 23   | Barbados.....             | 2,132   | 5,548     | 7,776     | 6,387     | 4,347               |
| 73                           | 6    | 25   | Honduras.....             | 38      | 15,573    | 6,999     | 6,182     | 207                 |
| Totals, Above Countries..... |      |      |                           | 633,755 | 1,862,035 | 2,507,884 | 2,560,617 | 2,000,947           |
| Grand Totals, Imports.....   |      |      |                           | 677,451 | 1,927,279 | 2,573,944 | 2,636,945 | 2,073,927           |

<sup>1</sup> First nine months.

<sup>2</sup> Less than \$500.

<sup>3</sup> Includes Luxembourg.

<sup>4</sup> January-March, 1949.



Outfitting the "Kuei Men" at Quebec Harbour. This ship, one of nine to be built for a Chinese industrial firm at Shanghai, contains over 2,000,000 lb. of aluminum. Practically everything above the deck is made of the metal, including the bulkheads, king posts and davits.

### Principal Imports, 1938 and 1946-49<sup>1</sup>

Note.—Commodities arranged in order of importance in 1948.

| Commodity                         | 1938           | 1946             | 1947             | 1948             | 1949 <sup>1</sup> |
|-----------------------------------|----------------|------------------|------------------|------------------|-------------------|
|                                   | \$'000         | \$'000           | \$'000           | \$'000           | \$'000            |
| Petroleum and products.....       | 55,607         | 123,743          | 207,194          | 301,782          | 199,817           |
| Machinery, except farm.....       | 36,916         | 130,286          | 206,011          | 217,091          | 164,540           |
| Coal and products.....            | 39,172         | 133,082          | 153,689          | 206,227          | 118,332           |
| Farm implements and machinery     | 20,320         | 68,352           | 105,405          | 139,993          | 141,751           |
| Cotton and manufactures.....      | 29,535         | 119,158          | 179,894          | 135,347          | 105,070           |
| Automobiles, trucks and parts...  | 37,442         | 98,155           | 167,972          | 128,564          | 122,579           |
| Wool and manufactures.....        | 25,185         | 64,569           | 84,463           | 115,066          | 82,837            |
| Rolling-mill products, steel..... | 25,470         | 53,376           | 77,970           | 83,929           | 85,563            |
| Sugar and products.....           | 20,581         | 39,879           | 57,420           | 71,752           | 48,038            |
| Electrical apparatus.....         | 13,054         | 47,788           | 68,773           | 62,127           | 49,716            |
| Fruits.....                       | 20,948         | 95,496           | 77,477           | 59,561           | 49,252            |
| Engines and boilers.....          | 7,789          | 29,462           | 43,882           | 50,285           | 46,215            |
| Rubber and products.....          | 11,290         | 20,079           | 28,730           | 31,607           | 21,244            |
| Books and printed matter.....     | 15,277         | 30,737           | 31,935           | 31,268           | 25,356            |
| Nuts.....                         | 3,499          | 22,591           | 22,050           | 31,027           | 16,529            |
| Clay and products.....            | 7,660          | 17,825           | 24,059           | 30,773           | 25,085            |
| Grain and products.....           | 17,274         | 20,197           | 36,453           | 30,565           | 15,059            |
| Artificial silk and products..... | 3,734          | 22,103           | 34,493           | 29,680           | 25,357            |
| Flax, hemp, jute and products...  | 8,543          | 23,142           | 37,873           | 27,259           | 15,184            |
| Glass and glassware.....          | 6,670          | 23,258           | 28,626           | 25,925           | 18,179            |
| Furs and products.....            | 5,651          | 27,292           | 22,451           | 24,568           | 14,924            |
| Coffee and chicory.....           | 3,932          | 16,162           | 14,382           | 23,914           | 18,874            |
| Vegetable oils.....               | 11,870         | 15,062           | 25,642           | 20,912           | 16,351            |
| Stone and products.....           | 6,880          | 14,676           | 18,357           | 20,084           | 17,593            |
| Pipes, tubes and fittings.....    | 1,972          | 8,411            | 13,464           | 18,598           | 23,926            |
| Tea.....                          | 9,570          | 10,208           | 20,655           | 17,739           | 16,975            |
| Aluminum and products.....        | 4,899          | 14,693           | 17,183           | 17,662           | 13,320            |
| Scientific equipment.....         | 4,352          | 13,582           | 17,330           | 17,594           | 15,192            |
| Paper.....                        | 7,520          | 18,834           | 23,027           | 17,213           | 14,673            |
| Cocoa and chocolate.....          | 2,065          | 5,626            | 7,415            | 16,460           | 11,751            |
| <b>Totals, Above Commodities</b>  | <b>464,677</b> | <b>1,327,824</b> | <b>1,854,275</b> | <b>2,004,572</b> | <b>1,539,282</b>  |
| <b>Grand Totals, Imports.....</b> | <b>677,451</b> | <b>1,927,279</b> | <b>2,573,944</b> | <b>2,636,945</b> | <b>2,073,927</b>  |

<sup>1</sup> First nine months.



## *Canadian Balance of International Payments*

Foreign exchange difficulties of a world-wide character have become prominent in recent years. Typical of these dislocations have been the exchange problems of European nations arising from their unprecedented needs for commodities from the countries of the Western Hemisphere like Canada and the United States at a time when their ability to supply the North American countries with goods and services in payment is impaired by the effects of the recent war. The impaired financial position of the United Kingdom and other overseas nations has been particularly significant for Canada since Canada exports much more to overseas countries than she purchases, the United States being the chief source of Canadian imports. Because of the unprecedented needs for Canadian commodities Canada has had large export balances with the United Kingdom, other Commonwealth countries, and Europe at a time when the balance of imports of goods and services by Canada from the United States has also been of record size.

But the European nations have not been able to pay Canada in exchange which could be converted into United States dollars for all of the goods and services supplied by Canada to this group of nations. Large loans and export credits were extended by the Canadian Government to the United Kingdom and other governments in the early post-war period to assist and develop Canadian trade and to assist in covering the balance of payments deficits of the United Kingdom. Drawings on these loans and export credits financed a considerable part of Canada's trade with these countries, particularly in 1946 and 1947 when the net drawings were \$750,000,000 and \$563,000,000, respectively. In addition the Canadian Government provided assistance through contributions to UNRRA and post-UNRRA. But the effect of these various types of assistance was to reduce the amounts received for exports in convertible exchange. Yet Canada's own needs for United States dollars to meet the current deficit with the United States were growing sharply as Canadian purchases from that country rose.

Canada's current deficit with the United States reached a peak of \$1,135,000,000 in 1947 when imports rose very sharply, being stimulated by higher levels of Canadian prosperity and economic activity and affected also by rising prices in the United States and an increasing range of goods becoming available. In addition other current payments acted to swell the current deficit, including larger dividends and increased payments for services like transportation and tourist expenditures. This large current deficit with the United States was an important contributor to the loss in official reserves of \$743,000,000 in 1947 as receipts of exchange from overseas were reduced by the size of drawings on Canadian loans to overseas countries. Other capital transactions also led to the use of official reserves in that year.

To alleviate the balance of payments problem a series of remedial measures was introduced towards the end of 1947 with the object of reducing Canadian imports from the United States and other expenditures and encouraging the development of Canadian sources of United States dollars. The more extensive of the measures were the restrictions upon imports which took the form of prohibiting imports of a variety of consumer goods and other articles and a reduction in the volume of imports of a number of other commodities which were placed under quota. Certain relaxations in the restrictions were made towards the end of 1948 and in 1949.

In 1948 a very great improvement occurred in Canada's international accounts. Reserves of United States dollars and gold rose \$491,000,000, reflecting among other things an expansion in Canada's current account surplus with other countries which rose from \$47,000,000 in 1947 to \$453,000,000 in 1948. This surplus yielded more convertible exchange as exports financed by the Canadian loans in 1948 were reduced to \$126,000,000 net. Other capital requirements led to fewer needs for exchange, likewise, in contrast to 1947 when there were large outflows for redemptions of securities and other purposes. In addition the Canadian Government sold a long-term loan of \$150,000,000 to insurance companies in the United States in the summer of 1948.

The great increase in the size of the current surplus in 1948 was mainly due to a rise in current receipts with only a slight change in current expenditures. Even wider changes occurred in Canada's accounts with individual countries and areas. The largest changes occurred in the account with the United States where the current deficit declined from \$1,135,000,000 in 1947 to \$401,000,000 in 1948 due principally to a spectacular rise in the value of goods and services exported to that country, combined with a decline in the value of imports which were reduced by the import restrictions. At the same time there were appreciable declines in the export surplus with the United Kingdom, with other countries of the Sterling Area, and other overseas countries. The current surplus with all overseas countries declined from \$1,220,000,000 in 1947 to \$873,000,000 in 1948 even though many of these countries received assistance under the European Recovery Plan. Even with that aid most of them found it necessary to extend or reintroduce restrictions upon purchases in Canada.

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*A British freighter loads lumber at a Vancouver, B.C., wharf.*



In 1949 the current surplus was much less than in 1948 due principally to a reduction in the balance of merchandise exports, higher income payments, and a sharp reduction in net receipts from tourist expenditures. The trend in the commodity account was due to a rise in the value of imports and a contraction in the value of exports, the volume of imports rising in the early part of the year while that of exports declined in comparison with 1948. In the nine months ended September, 1949, net exports were about \$93,000,000 compared with \$261,600,000 in the same period of 1948. Most of this deterioration occurred in the commodity trade balance with the United States where there was an appreciable increase in imports, expanding the balance of imports in the nine months to about \$433,000,000 compared with \$265,600,000 in the same period in 1948. At the same time the export balance with the United Kingdom was slightly lower as imports were higher. But the export balance with the other countries of the Sterling Area was higher than in the same period of 1948 due to an increase in exports, particularly notable in trade with a few countries like British South Africa, India and Pakistan. With other overseas countries the balance of exports was lower, that with Continental Europe continuing to decline even with ECA aid.

Net exports of non-monetary gold in the nine months showed an increase reflecting improved production, being over \$97,000,000 compared with \$87,500,000 in the same period of 1948. The sharp decline that occurred in Canada's net receipts on tourist account resulted from the rise in Canadian expenditures in the United States (see p. 261). Another notable adverse trend in 1949 has been the substantial increase in net payments on income account due to the expansion in dividend payments by Canadian subsidiaries to parent companies in the United States.

In the same nine-month period of 1949 only a slight change occurred in the level of Canada's official reserves of United States dollars and gold, which were \$985,300,000 at the end of September, 1949, exclusive of the proceeds of a loan of \$100,000,000 sold by the Canadian Government in the United States in September to refinance several issues of Canadian securities being redeemed. At the end of 1948 the official reserves were \$997,800,000.

Other notable changes in the capital account in 1949 were an increase in drawings by the United Kingdom on the 1946 credit, these rising to an annual rate of \$120,000,000. But as there were no further drawings on export credits this rate of drawing was somewhat less than was drawn in 1948 on all loans. Other capital movements continued to be diverse. Redemptions of Canadian securities owned, apart from government issues refinanced, were lower in comparison with recent years and there continued to be appreciable inflows of capital for direct investment in Canada.

### *Tourist Trade*

Tourists and other travellers entered Canada in greater numbers in 1949 than in any previous year. There was a moderate advance over 1948 in the number of visitors from the United States and a much larger advance proportionately in the number of visitors from overseas countries. Automobile entries from the United States on traveller's vehicle permits during the year were close to 2,000,000 as compared with 1,800,000 in 1948. From a regional point of view more than half of the increase occurred in Quebec and Ontario, but in proportion to the volume of traffic entering each province the greatest gains were in the Prairie Provinces and in New Brunswick. There was little



change in the number of arrivals by train, bus and boat while traffic by aircraft increased substantially.

Average expenditures in Canada per visitor were lower than in 1948 for some automobile travellers but were higher for passengers arriving by train, bus, boat and aircraft. The drop in spending by motorists was greater in the local or non-permit traffic which in 1948 included numerous shopping visits to Windsor, Niagara Falls and other border points. During 1948 these visits were stimulated by the favourable differential which existed in prices of food and other commodities in Canada during the greater part of the year. However, price levels commenced to decline in the United States in the autumn of 1948 and continued to drop during the remainder of the year and the early part of 1949, whereas Canadian prices remained relatively stable. It is reasonable to infer that while travelling expenses of these short-term motorists may not have varied a great deal from the year before their purchases are likely to have decreased considerably.

Although more visitors entered Canada in 1949 than in 1948, net expenditures of these travellers in Canada, after deducting expenditures of Canadian travellers in other countries, were considerably smaller than in the year before. This was due to the fact that Canadians travelled to other countries in much greater numbers, and that the increase in the number of Canadian travellers far outstripped the increase in the number of foreign travellers in Canada. The advance was reflected in all types of traffic, reach-

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*The Chateau Frontenac and Lower Town from the King's Bastion in Quebec Citadel.*





*The old oaken bucket still hangs at Evangeline's Well—a link with Acadian life and romance of past days in Nova Scotia.*

ing a peak in the long-term automobile traffic remaining out of the country for more than 24 hours, which increased 69 p.c. in the first eight months. The greater part of the gain in this traffic was at Windsor, Fort Erie, Niagara Falls and other border points adjacent to United States cities. This and the large volume of imports by Canadian tourists suggest that many of the Canadian cars were on shopping visits caused by declining United States commodity prices and the return of the \$100 customs exemption which had been suspended from November, 1947, to the end of 1948. The combined effect of heavier traffic, more shopping and freer spending was to raise Canadian travel expenditures during the first nine months of 1949 by approximately one-half over the comparable period of 1948.

Overseas travel, both by non-residents and residents, recorded a greater increase in 1949 than in any year since the War.

The balance of payments on travel account between Canada and all countries for the years 1939-48 is given in the following statement.

| <u>Year</u> | <u>Credits</u>        | <u>Debits</u> | <u>Net</u> | <u>Year</u> | <u>Credits</u>        | <u>Debits</u> | <u>Net</u> |
|-------------|-----------------------|---------------|------------|-------------|-----------------------|---------------|------------|
|             | (Millions of Dollars) |               |            |             | (Millions of Dollars) |               |            |
| 1939.....   | 149                   | 81            | +68        | 1944.....   | 120                   | 60            | +60        |
| 1940.....   | 105                   | 43            | +62        | 1945.....   | 166                   | 83            | +83        |
| 1941.....   | 111                   | 21            | +90        | 1946.....   | 222                   | 136           | +86        |
| 1942.....   | 82                    | 27            | +55        | 1947.....   | 251                   | 167           | +84        |
| 1943.....   | 89                    | 37            | +52        | 1948.....   | 283                   | 134           | +149       |



An analysis of expenditures of travellers between Canada and the United States, classified by means of travel, illustrates the recovery from the effects of wartime restrictions.

| <i>Means of Travel</i>                          | <i>1943</i>                    | <i>1944</i> | <i>1945</i> | <i>1946</i> | <i>1947</i> | <i>1948</i> |
|---|--------------------------------|-------------|-------------|-------------|-------------|-------------|
|   | (Millions of Canadian Dollars) |             |             |             |             |             |
| EXPENDITURES IN CANADA OF TRAVELLERS FROM U.S.— |                                |             |             |             |             |             |
| Automobile.....                                 | 17.0                           | 24.4        | 56.9        | 98.0        | 118.4       | 141.9       |
| Rail.....                                       | 49.0                           | 67.2        | 64.3        | 61.4        | 56.6        | 55.9        |
| Boat.....                                       | 6.0                            | 7.9         | 13.0        | 17.3        | 22.1        | 16.0        |
| Through bus.....                                | 5.0                            | 6.3         | 12.9        | 15.8        | 16.7        | 20.8        |
| Aircraft.....                                   | 3.0                            | 3.2         | 5.6         | 10.3        | 13.1        | 12.1        |
| Other (pedestrians, local bus, etc.).....       | 7.0                            | 7.5         | 10.6        | 13.3        | 14.2        | 23.1        |
| TOTALS.....                                     | 87.0                           | 116.6       | 163.3       | 216.1       | 241.1       | 269.8       |
| EXPENDITURES IN U.S. OF TRAVELLERS FROM CANADA— |                                |             |             |             |             |             |
| Automobile.....                                 | 1.9                            | 3.8         | 7.5         | 21.7        | 32.6        | 25.1        |
| Rail.....                                       | 22.0                           | 33.1        | 39.4        | 49.6        | 52.2        | 35.9        |
| Boat.....                                       | 0.7                            | 1.1         | 1.8         | 3.2         | 4.1         | 3.1         |
| Through bus.....                                | 3.2                            | 8.7         | 17.0        | 28.5        | 34.6        | 25.5        |
| Aircraft.....                                   | 1.2                            | 2.4         | 4.1         | 8.8         | 9.0         | 7.3         |
| Other (pedestrians, local bus, etc.).....       | 4.7                            | 7.9         | 11.0        | 18.1        | 19.8        | 16.3        |
| TOTALS.....                                     | 33.7                           | 57.1        | 80.9        | 129.9       | 152.3       | 113.2       |

Burrard Inlet from Prospect Point, Stanley Park, Vancouver, B.C.







*The Bank of Canada, Ottawa, the Government's banker whose primary function is the regulation of credit and currency and the promotion of the economic and financial welfare of Canada.*

# Finance

## ★ Public Finance

THIS section presents public finance statistics for all levels of government in Canada—Federal, Provincial and Municipal. It should be noted that, under the first heading, the revenue and expenditure tables exclude inter-governmental transfers, subsidies, and payments from the Federal Government to the provinces under the Dominion-Provincial Taxation Agreement Act. In addition, the revenues and expenditures are shown on a “net” basis, shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue being treated as offsets to corresponding expenditures. Other main headings deal in more detail with the salient aspects of Federal, Provincial and Municipal finance.

### *Combined Statistics for all Governments*

**Combined Revenues and Expenditures.**— Combined revenues of all governments exclusive of inter-governmental transfers amounted to \$3,511,000,000 for 1946, or over 339 p.c. of the 1939 total of \$1,033,000,000. Expenditures amounted to \$3,097,000,000 for 1946, equal to 252 p.c. of the \$1,231,000,000 total for 1939. In the same period the gross national product rose from \$5,598,000,000 in 1939 to \$11,936,000,000 in 1946, when it amounted to 213 p.c. of the 1939 figure. A comparison of the index of change in these three factors (using 1939 as the base year) which reflect the rapid expansion and acceleration in governmental finances as a whole, as well as in the general economy of the country, during the war years is as follows:—

| <i>Year</i> | <i>Gross<br/>National<br/>Product</i> | <i>Total<br/>Revenues</i> | <i>Total<br/>Expenditures</i> |
|-------------|---------------------------------------|---------------------------|-------------------------------|
| 1939.....   | 100                                   | 100                       | 100                           |
| 1941.....   | 151                                   | 196                       | 189                           |
| 1942.....   | 188                                   | 261                       | 381                           |
| 1943.....   | 202                                   | 301                       | 448                           |
| 1944.....   | 213                                   | 292                       | 444                           |
| 1945.....   | 210                                   | 326                       | 435                           |
| 1946.....   | 213                                   | 340                       | 252                           |

Prior to the War, the revenues and expenditures of Provincial and Municipal Governments together exceeded those of the Federal Government. In 1939, federal revenues accounted for only 46 p.c. of the combined total, while in 1946 they represented 78 p.c. of the total; federal expenditures correspondingly changed from 46 p.c. of the total for 1939 to 72 p.c. of the total for 1946. This is accounted for by the fact that the burden of financing Canada's war effort fell upon the Federal Government. At the same time, the aim of the Federal Government was to finance as large a part as possible of the cost of carrying on a total war effort out of current revenues.

The period from 1939 to 1946 also brought about a change in the relative weight of various federal revenues. In the year 1939 the greatest single



Blank family allowance cheques, awaiting use, are stored in a special vault at set humidity: over 1,800,000 are issued each month for a total amount of \$24,800,000.

source of revenue was the general sales tax (\$137,446,000), followed by customs duties and other import taxes (\$106,819,000), and corporate income taxes (\$77,920,000). However, in the year 1946 personal income tax was the greatest source of revenue (\$681,289,000), followed by corporate income taxes (\$670,530,000), general sales tax (\$298,228,000), and customs duties and other import taxes (\$239,568,000).

### Comparative Federal, Provincial and Municipal Revenues, Selected Years, 1933-46

NOTE.—Figures are for fiscal years ended nearest to Dec. 31. Inter-governmental transfers, subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded. SOURCE: Comparative statistics of Public Finance prepared for the Dominion-Provincial Conference on Reconstruction.

| Year      | Federal   | Provincial and Municipal |           |         | Total     |
|-----------|-----------|--------------------------|-----------|---------|-----------|
|           |           | Provincial               | Municipal | Total   |           |
|           | Revenues  |                          |           |         |           |
|           | \$'000    | \$'000                   | \$'000    | \$'000  | \$'000    |
| 1933..... | 278,181   | 133,252                  | 294,068   | 427,320 | 705,501   |
| 1937..... | 460,544   | 221,397                  | 304,161   | 525,558 | 986,102   |
| 1939..... | 480,027   | 236,223                  | 316,964   | 553,187 | 1,033,214 |
| 1941..... | 1,389,433 | 301,842                  | 331,206   | 633,048 | 2,022,481 |
| 1942..... | 2,125,745 | 240,098                  | 330,748   | 570,846 | 2,696,591 |
| 1943..... | 2,522,414 | 250,646                  | 340,690   | 591,336 | 3,113,750 |
| 1944..... | 2,402,447 | 262,269                  | 351,148   | 613,417 | 3,015,864 |
| 1945..... | 2,694,116 | 316,621                  | 353,158   | 669,779 | 3,363,895 |
| 1946..... | 2,738,515 | 397,258                  | 375,477   | 772,735 | 3,511,250 |



**Comparative Federal, Provincial and Municipal Revenues,  
Selected Years, 1933-46—concluded**

| Year                         | Federal | Provincial and Municipal |           |        | Total  |
|------------------------------|---------|--------------------------|-----------|--------|--------|
|                              |         | Provincial               | Municipal | Total  |        |
| Percentage Distribution      |         |                          |           |        |        |
|                              | \$'000  | \$'000                   | \$'000    | \$'000 | \$'000 |
| 1933.....                    | 39.4    | 18.9                     | 41.7      | 60.6   | 100.0  |
| 1937.....                    | 46.7    | 22.5                     | 30.8      | 53.3   | 100.0  |
| 1939.....                    | 46.5    | 22.8                     | 30.7      | 53.5   | 100.0  |
| 1941.....                    | 68.7    | 14.9                     | 16.4      | 31.3   | 100.0  |
| 1942.....                    | 78.8    | 8.9                      | 12.3      | 21.2   | 100.0  |
| 1943.....                    | 81.0    | 8.1                      | 10.9      | 19.0   | 100.0  |
| 1944.....                    | 79.7    | 8.7                      | 11.6      | 20.3   | 100.0  |
| 1945.....                    | 80.1    | 9.4                      | 10.5      | 19.9   | 100.0  |
| 1946.....                    | 78.0    | 11.3                     | 10.7      | 22.0   | 100.0  |
| Index of Change (1939 = 100) |         |                          |           |        |        |
| 1933.....                    | 57.9    | 56.4                     | 92.7      | 77.2   | 68.2   |
| 1937.....                    | 95.9    | 93.7                     | 95.9      | 95.0   | 93.6   |
| 1939.....                    | 100.0   | 100.0                    | 100.0     | 100.0  | 100.0  |
| 1941.....                    | 289.4   | 127.7                    | 104.5     | 114.4  | 195.7  |
| 1942.....                    | 442.8   | 101.6                    | 104.3     | 103.1  | 260.9  |
| 1943.....                    | 525.4   | 106.1                    | 107.4     | 106.8  | 301.3  |
| 1944.....                    | 500.5   | 111.0                    | 110.8     | 110.9  | 291.9  |
| 1945.....                    | 561.2   | 134.0                    | 111.4     | 121.1  | 326.0  |
| 1946.....                    | 570.5   | 168.2                    | 118.5     | 139.7  | 339.8  |

**Comparative Federal, Provincial and Municipal Expenditures  
(Capital and Current), Selected Years, 1933-46**

NOTE.—See headnote to preceding table.

| Year                         | Federal   | Provincial and Municipal |           |         | Total     |
|------------------------------|-----------|--------------------------|-----------|---------|-----------|
|                              |           | Provincial               | Municipal | Total   |           |
| Expenditures                 |           |                          |           |         |           |
|                              | \$'000    | \$'000                   | \$'000    | \$'000  | \$'000    |
| 1933.....                    | 389,587   | 218,864                  | 301,770   | 520,634 | 910,221   |
| 1937.....                    | 444,599   | 359,689                  | 296,288   | 655,977 | 1,100,576 |
| 1939.....                    | 571,198   | 354,883                  | 304,580   | 659,463 | 1,230,661 |
| 1941.....                    | 1,718,787 | 311,260                  | 292,517   | 603,777 | 2,322,564 |
| 1942.....                    | 4,102,441 | 293,637                  | 295,128   | 588,765 | 4,691,206 |
| 1943.....                    | 4,907,475 | 300,997                  | 300,579   | 601,576 | 5,509,051 |
| 1944.....                    | 4,803,049 | 339,531                  | 316,825   | 656,356 | 5,459,405 |
| 1945.....                    | 4,652,738 | 370,875                  | 334,135   | 705,010 | 5,357,748 |
| 1946.....                    | 2,229,674 | 476,734                  | 390,658   | 867,392 | 3,097,066 |
| Percentage Distribution      |           |                          |           |         |           |
| 1933.....                    | 42.8      | 24.1                     | 33.1      | 57.2    | 100.0     |
| 1937.....                    | 40.4      | 32.7                     | 26.9      | 59.6    | 100.0     |
| 1939.....                    | 46.4      | 28.8                     | 24.8      | 53.6    | 100.0     |
| 1941.....                    | 74.0      | 13.4                     | 12.6      | 26.0    | 100.0     |
| 1942.....                    | 87.4      | 6.3                      | 6.3       | 12.6    | 100.0     |
| 1943.....                    | 89.1      | 5.5                      | 5.4       | 10.9    | 100.0     |
| 1944.....                    | 88.0      | 6.2                      | 5.8       | 12.0    | 100.0     |
| 1945.....                    | 86.9      | 6.9                      | 6.2       | 13.1    | 100.0     |
| 1946.....                    | 72.0      | 15.4                     | 12.6      | 28.0    | 100.0     |
| Index of Change (1939 = 100) |           |                          |           |         |           |
| 1933.....                    | 68.2      | 61.7                     | 99.1      | 78.9    | 74.0      |
| 1937.....                    | 77.8      | 101.4                    | 97.3      | 99.5    | 89.4      |
| 1939.....                    | 100.0     | 100.0                    | 100.0     | 100.0   | 100.0     |
| 1941.....                    | 300.9     | 87.7                     | 96.0      | 91.6    | 188.7     |
| 1942.....                    | 718.2     | 82.7                     | 96.9      | 89.3    | 381.2     |
| 1943.....                    | 859.2     | 84.8                     | 98.7      | 91.2    | 447.6     |
| 1944.....                    | 840.9     | 95.7                     | 104.0     | 99.5    | 443.6     |
| 1945.....                    | 815.0     | 104.5                    | 109.7     | 106.9   | 435.4     |
| 1946.....                    | 390.3     | 134.3                    | 128.3     | 131.5   | 251.6     |

**Combined Debt.**—The combined total of direct and indirect debt (exclusive of inter-governmental debt) of all governments in Canada amounted to \$21,435,216,000 at the close of their fiscal years ended nearest to Dec. 31, 1946.

**Combined Federal, Provincial and Municipal Direct and Indirect Debt, 1942-46**

NOTE.—Figures are for fiscal years ended nearest to Dec. 31.

| Item   | 1942              | 1943              | 1944              | 1945              | 1946              |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
|  | \$'000            | \$'000            | \$'000            | \$'000            | \$'000            |
| <b>Direct Debt—</b>                                |                   |                   |                   |                   |                   |
| Federal.....                                       | 8,676,110         | 11,784,569        | 15,104,888        | 18,089,359        | 18,048,660        |
| Provincial.....                                    | 1,892,182         | 1,827,213         | 1,805,770         | 1,804,335         | 1,817,524         |
| Municipal.....                                     | 1,101,077         | 1,031,429         | 980,674           | 946,263           | 936,835           |
| Totals.....  | 11,669,369        | 14,643,211        | 17,891,332        | 20,839,957        | 20,803,019        |
| Less Inter-governmental Debt                       | 217,447           | 216,602           | 248,686           | 239,199           | 229,645           |
| <b>Combined Direct Debt....</b>                    | <b>11,451,922</b> | <b>14,426,609</b> | <b>17,642,646</b> | <b>20,600,758</b> | <b>20,573,374</b> |
| <b>Indirect Debt—</b>                              |                   |                   |                   |                   |                   |
| Federal.....                                       | 885,203           | 822,904           | 737,668           | 592,810           | 621,058           |
| Provincial.....                                    | 189,980           | 192,310           | 189,180           | 175,549           | 220,459           |
| Municipal.....                                     | 49,830            | 48,497            | 46,686            | 45,865            | 45,994            |
| Totals.....  | 1,125,013         | 1,063,711         | 973,534           | 814,224           | 887,511           |
| Less Inter-governmental Debt                       | 59,555            | 56,541            | 25,000            | 22,656            | 21,710            |
| <b>Combined Indirect Debt..</b>                    | <b>1,065,458</b>  | <b>1,007,170</b>  | <b>948,534</b>    | <b>791,568</b>    | <b>865,801</b>    |
| <b>Grand Totals, Direct and Indirect Debt.....</b> | <b>12,517,380</b> | <b>15,433,779</b> | <b>18,591,180</b> | <b>21,392,326</b> | <b>21,439,175</b> |

Large increases in the federal debt as a result of war financing overshadowed reductions in both provincial and municipal debt. However, this increase was largely in bonds outstanding, representing additions to internal rather than to external debt, as the Federal Government was able to finance the War without recourse to the issue of foreign-pay bonds. Federal direct and indirect foreign-pay bonds declined by more than \$930,000,000 in the period 1940-46, a large part of this reduction being due to the repatriation of sterling issues.

Buoyant revenues resulting in over-all surpluses, together with curtailed capital expenditure programs, the result, in part, of wartime restrictions, have made it possible for Provincial Governments to reduce their outstanding debt, some by fairly substantial amounts. Similarly, the general curtailment by municipalities of capital undertakings and works requiring debenture financing and increased tax collections resulting from general improvement in economic activity have resulted in progressive reductions in municipal debt.

### *Finances of the Federal Government*

The Federal Government's accounts for the fiscal year ended Mar. 31, 1949, showed a surplus of revenues over expenditures amounting to \$595,502,743, compared with a surplus of \$676,120,000 for the previous fiscal year.

Revenues declined for the third successive year while expenditures, which reached their peak in 1943-44, also continued their declining trend.

One of the most interesting aspects of federal finance to the ordinary citizen is the growth in the net debt of Canada and, in this regard the following table is of particular interest since it shows the trend from Confederation down to the latest year, 1949. At Confederation the total net

debt of Canada was only \$76,000,000 and represented \$21.58 per head of the population. The First and Second World Wars caused staggering increases; the net debt which was \$336,000,000 in 1914 increased to \$2,341,000,000 in 1921, or from \$42.64 per capita to \$266.37 per capita. By the end of the Second World War in 1946, net debt had reached the stupendous total of \$13,421,000,000 or \$1,090.55 per head of the population. The Budget surpluses of the three fiscal years ended in 1947, 1948 and 1949 have reduced the net debt to \$869.41 per head of the population.

### *Finances of the Federal Government, Years Ended Mar. 31, 1868-1949*

| Year      | Total Revenue | Per Capita Revenue <sup>1</sup> | Total Expenditure          | Per Capita Expenditure <sup>1</sup> | Net Debt at End of Year | Net Debt Per Capita <sup>1</sup> |
|-----------|---------------|---------------------------------|----------------------------|-------------------------------------|-------------------------|----------------------------------|
|           | \$            | \$                              | \$                         | \$                                  | \$                      | \$                               |
| 1868..... | 13,687,928    | 3.90                            | 14,071,689                 | 4.01                                | 75,757,135              | 21.58                            |
| 1871..... | 19,375,037    | 5.25                            | 19,293,478                 | 5.23                                | 77,706,518              | 21.06                            |
| 1881..... | 29,635,298    | 6.85                            | 33,796,643                 | 7.82                                | 155,395,780             | 35.93                            |
| 1891..... | 38,579,311    | 7.98                            | 40,793,208                 | 8.44                                | 257,809,031             | 49.21                            |
| 1901..... | 52,516,333    | 9.78                            | 57,982,866                 | 10.80                               | 238,480,004             | 49.99                            |
| 1911..... | 117,884,328   | 16.36                           | 122,861,250                | 17.05                               | 340,042,052             | 47.18                            |
| 1921..... | 436,292,184   | 49.65                           | 528,302,513 <sup>2</sup>   | 60.12                               | 2,340,878,984           | 266.37                           |
| 1931..... | 357,720,435   | 34.48                           | 441,568,413 <sup>2</sup>   | 42.56                               | 2,261,611,937           | 217.97                           |
| 1939..... | 502,171,354   | 44.57                           | 553,063,098 <sup>2</sup>   | 49.09                               | 3,152,559,314           | 279.80                           |
| 1940..... | 562,093,459   | 49.39                           | 680,793,792 <sup>2</sup>   | 59.82                               | 3,271,259,647           | 287.43                           |
| 1941..... | 872,169,645   | 75.79                           | 1,249,601,446 <sup>2</sup> | 108.59                              | 3,648,691,449           | 317.08                           |
| 1942..... | 1,488,536,343 | 127.73                          | 1,885,066,055 <sup>2</sup> | 161.75                              | 4,045,221,161           | 347.11                           |
| 1943..... | 2,249,496,177 | 190.44                          | 4,387,124,118 <sup>2</sup> | 371.41                              | 6,182,849,101           | 523.44                           |
| 1944..... | 2,765,017,713 | 230.90                          | 5,322,253,505 <sup>2</sup> | 444.45                              | 8,740,084,893           | 729.86                           |
| 1945..... | 2,687,334,799 | 221.75                          | 5,245,611,924 <sup>2</sup> | 432.84                              | 11,298,362,018          | 932.29                           |
| 1946..... | 3,013,185,074 | 244.84                          | 5,136,228,505 <sup>2</sup> | 417.34                              | 13,421,405,449          | 1,090.55                         |
| 1947..... | 3,007,876,313 | 239.06                          | 2,634,227,412 <sup>2</sup> | 209.36                              | 13,047,756,548          | 1,037.02                         |
| 1948..... | 2,871,746,110 | 222.91                          | 2,195,626,453 <sup>2</sup> | 170.43                              | 12,371,636,893          | 960.31                           |
| 1949..... | 2,771,395,075 | 204.61                          | 2,175,892,332 <sup>2</sup> | 203.69                              | 11,776,134,152          | 869.41                           |

<sup>1</sup> Per capita figures for census years are based on census populations and for intervening years on official estimates. <sup>2</sup> Includes non-active advances to railways and transfers from active to non-active assets.

Revenue from taxation accounted for 90 p.c. of total revenues in 1948-49, compared with little more than 85 p.c. in 1947-48. Despite the lower personal income tax rates, revenue from income taxes, sustained by the buoyant condition of the national economy, increased by \$238,000,000 over the previous year. Non-tax revenues, continuing the upward trend of the past eleven years, were \$35,000,000 higher than in 1946-47.

Demobilization and reconversion expenditures were \$209,000,000 less in 1948-49 than in the previous year. Partially offsetting this decrease were increases of \$193,000,000 in ordinary expenditures, of \$21,000,000 in government-owned enterprises, and of \$3,000,000 in capital expenditures.

Some of the major items of ordinary expenditure were: interest on the public debt, which increased from \$455,000,000 in 1947-48 to \$465,000,000 in 1948-49; old age pensions, which increased from \$58,000,000 to \$67,000,000; family allowances, which increased from \$263,000,000 to \$271,000,000; and expenditures by the Veterans Affairs Department, which increased from \$97,000,000 to \$183,000,000. The increase in expenditures on account of government-owned enterprises arose chiefly from the increase of \$17,600,000 in the deficit of the Canadian National Railways.



**Summary of Total Revenues and Expenditures, Years Ended  
Mar. 31, 1945-49**

| Item   | 1945              | 1946              | 1947                | 1948                | 1949                |
|--|-------------------|-------------------|---------------------|---------------------|---------------------|
|  | \$'000            | \$'000            | \$'000              | \$'000              | \$'000              |
| <b>Revenues</b>  |                   |                   |                     |                     |                     |
| Customs Import Duties.....   | 115,091           | 128,876           | 237,355             | 293,012             | 222,975             |
| Excise Duties.....   | 151,922           | 186,726           | 196,044             | 196,794             | 204,652             |
| Income Tax <sup>1</sup> .....                                      | 977,758           | 932,729           | 939,458             | 1,059,848           | 1,297,999           |
| Excess Profits Tax <sup>1</sup> .....                              | 341,305           | 426,696           | 442,497             | 227,031             | 44,792              |
| Sales Tax.....   | 209,390           | 212,247           | 298,228             | 383,012             | 390,174             |
| War Exchange Tax.....  | 98,164            | 41,198            | 338                 |                     |                     |
| Other taxes.....   | 260,997           | 273,886           | 313,741             | 292,378             | 275,550             |
| <b>Totals, Revenues from Taxation</b>                              | <b>2,154,627</b>  | <b>2,202,358</b>  | <b>2,427,661</b>    | <b>2,452,075</b>    | <b>2,436,142</b>    |
| Non-tax revenues.....  | 145,471           | 160,804           | 160,870             | 177,771             | 212,948             |
| <b>Totals, Ordinary Revenues....</b>                               | <b>2,300,098</b>  | <b>2,363,162</b>  | <b>2,588,531</b>    | <b>2,629,846</b>    | <b>2,649,090</b>    |
| Special receipts and other credits.                                | 387,237           | 650,023           | 419,345             | 241,900             | 122,305             |
| <b>Totals, Revenues.....</b>                                       | <b>2,687,335</b>  | <b>3,013,185</b>  | <b>3,007,876</b>    | <b>2,871,746</b>    | <b>2,771,395</b>    |
| <b>Expenditures</b>  |                   |                   |                     |                     |                     |
| Ordinary expenditures.....   | 767,376           | 1,061,902         | 1,236,235           | 1,380,002           | 1,573,450           |
| Capital expenditures.....  | 3,164             | 4,508             | 11,200              | 15,656              | 18,473              |
| War, demobilization and recon-<br>version expenditures (special).. | 4,418,446         | 4,002,949         | 1,314,798           | 634,421             | 425,574             |
| Other special expenditures.....                                    | 7,506             | 17,358            | 31,926 <sup>2</sup> | 63,141 <sup>3</sup> | 34,813 <sup>4</sup> |
| Government-owned enterprises...                                    | 1,358             | 1,334             | 10,682              | 18,695              | 39,663              |
| Other charges.....   | 47,762            | 48,177            | 29,386              | 83,711              | 83,919              |
| <b>Totals, Expenditures.....</b>                                   | <b>5,245,612</b>  | <b>5,136,228</b>  | <b>2,634,227</b>    | <b>2,195,626</b>    | <b>2,175,892</b>    |
| <b>Deficits or Surplus.....</b>                                    | <b>-2,558,277</b> | <b>-2,123,043</b> | <b>+373,649</b>     | <b>+676,120</b>     | <b>+595,503</b>     |

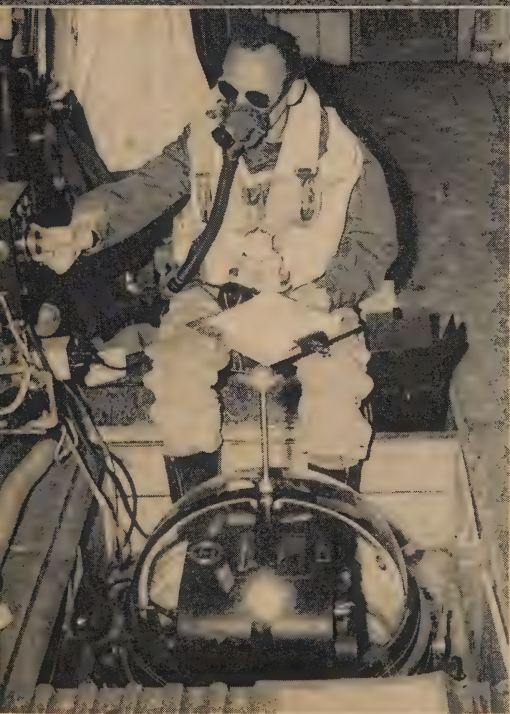
<sup>1</sup> Excludes refundable portion.      <sup>2</sup> Includes \$20,562,264 for deficits in certain special accounts of the Canadian Wheat Board.      <sup>3</sup> Includes \$31,450,498 for deficits in certain special accounts of the Canadian Wheat Board and \$13,963,218 for subsidy payments on oats and barley used as feed for live stock.      <sup>4</sup> Includes \$4,454,250 for deficits in certain special accounts of the Canadian Wheat Board.

**The 1949-50 Budget.**—The Budget for the fiscal year ending Mar. 31, 1950, was presented to Parliament on Mar. 22, 1949. Parliament was dissolved before the provisions of the Budget were passed and it was reintroduced to the new Parliament with minor modifications on Oct. 20, 1949. The most significant feature of the Budget was the substantial abatement of personal income and excise taxes.

In the personal income-tax field exemptions were raised for persons with single status from \$750 to \$1,000, for persons with married status from \$1,500 to \$2,000, for children eligible for family allowance from \$100 to \$150, for other dependants from \$300 to \$400. The rates of the graduated rate schedule were substantially lowered.

Provision was made also for the allowance of a credit of 10 p.c. of the amount of dividends received from shares of Canadian taxpaying corporations against the personal income tax of a shareholder.

In the corporation income-tax field the rate of tax on the first \$10,000 of income was reduced from 30 p.c. to 10 p.c. Taken in conjunction with the 10 p.c. tax credit noted above this change removed substantially all of the double taxation of those corporations whose earnings were not in excess of \$10,000. The rate of tax on corporation income over \$10,000 was raised to



*Increasing expenditures are being devoted to aerial surveys by the Federal Government. Utilizing the facilities of the R.C.A.F., detailed information of great importance on the topography and resources of the country is being secured, and at the same time practical training is given to Air Force personnel.*

33 p.c. The carry-forward of losses was extended from three years to five years. The regulations on depreciation were changed to recognize obsolescence.

The excise tax structure was greatly simplified by repealing taxes on some commodities (soft drinks, candy, transportation tickets, etc.) and by imposing a straight ad valorem tax of 10 p.c. at the manufacturer's level on other

commodities (jewellery, luggage, etc.) previously taxed at various rates. A few commodities were exempted from sales tax, the most important being fuel oils (not including those used in internal combustion engines).

After taking into account the tax changes proposed, a surplus of \$85,000,000 was forecast for the fiscal year ending Mar. 31, 1950, revenues being estimated at \$2,545,000,000 and expenditures at \$2,460,000,000.

**Borrowings.**—During the fiscal year ended Mar. 31, 1949, the Federal Government reduced its outstanding funded debt by \$472,000,000. Total redemption of debt during the year, excluding the recurring issues of treasury bills, amounted to \$3,082,000,000, of which \$2,373,000,000 was financed through renewals or conversions, and \$335,000,000 was raised by the sale of new issues to individuals for cash. Such new issues consisted of \$150,000,000 of 15-year 3 p.c. bonds which were sold to United States insurance companies; \$235,000,000 was raised by the sale of a new issue of 2½ p.c. Canada Savings Bonds, Series III, for cash. In addition, \$90,000,000 of one-, two- and three-year 2½ p.c. notes were disposed of to the Export-Import Bank of Washington.

**Income Tax.**—The Income War Tax Act was introduced during the War of 1914-18 as part of what was known as war-tax revenue. However, it was a war tax in name only, for even before the outbreak of the Second World War it had become a permanent and important part of the taxation structure, and the chief means of raising ordinary revenue. Effective Jan. 1, 1949, the Income War Tax Act was replaced by the Income Tax Act.

Before the outbreak of war the burden of income tax was shared by approximately 250,000 persons; this was expanded to over 2,366,000 by 1947. In order to secure as much revenue from taxation as was desirable for the prosecution of the Second World War, the income tax base was broadened and the rates increased. The lowering of exemptions was, of course, the prime influence in expanding the body of Canadian income taxpayers but the higher level of employment and of wage scales also had an important effect. Taxes on income reached a peak in 1943, but a portion of the tax was refunded after the War. Since 1943 there has been a gradual reduction in rates and a raising of the minimum exemptions. In 1949 the minimum exemptions were raised to the pre-war level of \$1,000 for persons taxed as single and \$2,000 for those taxed as married. Although income tax rates have been substantially reduced since 1943, they remain well above the pre-war rates.

During the Second World War the business profits occurring in an expanded wartime economy were heavily taxed through the Excess Profits Tax Act and increased rates of corporation income tax. Taxes on business profits remained at a peak from the latter part of 1942 until 1945, after which the rates were reduced. The Excess Profits Tax was terminated for individuals on Jan. 1, 1947, and for corporations on Jan. 1, 1948.

Analyses of individual and corporation income and excess profits tax for recent taxation years are given in the following tables. A taxation year is a period of time during which income is received and becomes subject to tax. In the case of an individual it is almost always a calendar year, and in the case of a corporation it is the calendar year in which the company's fiscal year ends. Under the present system of collection, a substantial portion of the taxes is collected during the year in which the income was earned and the balance almost entirely in the two following years.





Government buildings at Ottawa. This view from the Peace Tower of the Parliament Buildings shows the West Block, the Confederation Building, the Justice Building and, on the extreme right, the New Supreme Court Building. Beyond that are temporary government buildings erected during the War.

### Collections of Income and Excess Profits Tax, Taxation Years 1939-49

| Taxation Year         | Individuals and Individual Businesses |                    |             | Corporations             |                          |                          |
|-----------------------|---------------------------------------|--------------------|-------------|--------------------------|--------------------------|--------------------------|
|                       | Income Tax                            | Excess Profits Tax | Total       | Income Tax               | Excess Profits Tax       | Total                    |
|                       | \$                                    | \$                 | \$          | \$                       | \$                       | \$                       |
| 1939...               | 54,781,130                            | ...                | 54,781,130  | 90,498,381               | ...                      | 90,498,381               |
| 1940...               | 152,245,616                           | 4,533,451          | 156,779,067 | 151,394,634              | 102,518,315              | 253,912,949              |
| 1941...               | 329,333,512                           | 10,148,521         | 339,482,033 | 224,471,245              | 252,371,160              | 476,842,405              |
| 1942...               | 391,194,438                           | 18,543,654         | 409,738,092 | 270,204,989              | 396,478,331              | 666,683,320              |
| 1943...               | 825,781,811                           | 25,375,690         | 851,157,501 | 278,507,805              | 458,896,881              | 737,404,686              |
| 1944...               | 809,113,007                           | 27,850,327         | 836,963,334 | 231,004,405              | 431,502,987              | 662,507,392              |
| 1945...               | 710,478,191                           | 30,417,265         | 740,895,456 | 191,072,297 <sup>2</sup> | 407,618,086 <sup>2</sup> | 598,690,383 <sup>2</sup> |
| 1946...               | 742,754,945                           | 17,416,950         | 760,171,895 | 207,126,115 <sup>2</sup> | 372,346,637 <sup>2</sup> | 579,472,752 <sup>2</sup> |
| 1947...               | 613,410,939                           | 1,820,404          | 615,231,343 | 453,423,086              | 185,695,765              | 639,118,851              |
| 1948 <sup>1</sup> ... | 578,942,595                           | ...                | 578,942,595 | 395,852,655              | 19,449,402               | 415,302,057              |
| 1949 <sup>1</sup> ... | 93,871,091                            | ...                | 93,871,091  | 30,508,395               | ...                      | 30,508,395               |

<sup>1</sup> The accounts for these taxation years are not yet closed and the figures are therefore not complete. There will be a small change in the 1947 account and substantial additions to the 1948 and 1949 accounts. <sup>2</sup> Refunds arising out of renegotiation of war contracts and applicable in varying amounts to the war years 1941 to 1944 have, of necessity, been deducted from the 1945 and 1946 figures. The true 1945 and 1946 collections are therefore higher and the 1941 to 1944 collections lower than shown above.

**Number of Taxpayers, Total Income and Tax Collected Thereon, by  
Income Classes, 1947**

| Income Class         | Taxpayers        | Total Income         | Total Tax          |
|----------------------|------------------|----------------------|--------------------|
|                      | No.              | \$                   | \$                 |
| Below \$1,000.....   | 213,290          | 187,444,000          | 4,372,000          |
| \$1,000 - 2,000..... | 1,025,270        | 1,577,658,000        | 98,985,000         |
| 2,000 - 3,000.....   | 773,780          | 1,869,220,000        | 137,761,000        |
| 3,000 - 4,000.....   | 186,400          | 640,405,000          | 71,851,000         |
| 4,000 - 5,000.....   | 63,400           | 283,578,000          | 40,061,000         |
| 5,000 -10,000.....   | 76,190           | 513,550,000          | 95,002,000         |
| Over \$10,000.....   | 28,126           | 509,103,000          | 174,295,000        |
| <b>Totals.....</b>   | <b>2,366,456</b> | <b>5,580,958,000</b> | <b>622,327,000</b> |

**Number of Taxpayers, Total Income and Tax Collected Thereon, by  
Occupational Classes, 1947**

| Class                     | Taxpayers        | Total Income         | Total Tax          |
|---------------------------|------------------|----------------------|--------------------|
|                           | No.              | \$                   | \$                 |
| Primary producers.....    | 55,389           | 147,912,000          | 15,795,000         |
| Professionals.....        | 23,046           | 133,438,000          | 29,361,000         |
| Employees.....            | 2,060,946        | 4,404,072,000        | 402,659,000        |
| Salesmen.....             | 20,800           | 80,024,000           | 12,081,000         |
| Business proprietors..... | 140,997          | 565,124,000          | 98,170,000         |
| Financial.....            | 61,999           | 241,873,000          | 62,218,000         |
| Estates.....              | 1,541            | 3,309,000            | 1,062,000          |
| Deceased.....             | 1,137            | 4,145,000            | 883,000            |
| Unclassified.....         | 601              | 1,061,000            | 98,000             |
| <b>Totals.....</b>        | <b>2,366,456</b> | <b>5,580,958,000</b> | <b>622,327,000</b> |

## Provincial Finance

Commencing with 1946, the basis for the classification of revenues and expenditures has been revised and extended. Expenditures for debt retirement are now included in both the "gross" and "net" tables. Likewise, non revenue and non-expenditure items such as refunds and advances are also included. These two factors account for the chief differences.

**Gross General Revenues and Expenditures of Provincial Governments,  
by Provinces, 1944-46**

NOTE.—Figures are for fiscal years ended nearest Dec. 31.

| Province             | Gross General Revenues |                |                | Gross General Expenditures |                |                |
|----------------------|------------------------|----------------|----------------|----------------------------|----------------|----------------|
|                      | 1944                   | 1945           | 1946           | 1944                       | 1945           | 1946           |
|                      | \$'000                 | \$'000         | \$'000         | \$'000                     | \$'000         | \$'000         |
| Prince Edward Island | 2,564                  | 2,904          | 4,017          | 2,907                      | 3,203          | 3,857          |
| Nova Scotia.....     | 22,526                 | 24,367         | 27,645         | 20,252                     | 23,187         | 24,331         |
| New Brunswick.....   | 17,875                 | 19,454         | 24,420         | 17,318                     | 18,981         | 22,200         |
| Quebec.....          | 122,308                | 137,617        | 173,427        | 118,306                    | 122,929        | 146,754        |
| Ontario.....         | 140,627                | 159,665        | 180,605        | 139,503                    | 151,729        | 169,450        |
| Manitoba.....        | 25,669                 | 28,259         | 28,725         | 20,641                     | 22,628         | 23,170         |
| Saskatchewan.....    | 37,551                 | 41,570         | 45,198         | 29,607                     | 34,810         | 40,112         |
| Alberta.....         | 32,560                 | 40,651         | 43,167         | 25,002                     | 28,034         | 33,408         |
| British Columbia.... | 47,295                 | 53,468         | 65,401         | 40,619                     | 45,607         | 54,893         |
| <b>Totals.....</b>   | <b>448,975</b>         | <b>507,955</b> | <b>592,605</b> | <b>414,155</b>             | <b>451,108</b> | <b>518,175</b> |

## Net General Revenues and Net Combined General and Capital Expenditures of Provincial Governments, 1944-46

| Province             | Net General Revenues       |                            |                | Net General and Capital Expenditures |                |                |
|----------------------|----------------------------|----------------------------|----------------|--------------------------------------|----------------|----------------|
|                      | 1944                       | 1945                       | 1946           | 1944                                 | 1945           | 1946           |
|                      | \$'000                     | \$'000                     | \$'000         | \$'000                               | \$'000         | \$'000         |
| Prince Edward Island | 2,183                      | 2,529                      | 3,511          | 2,769                                | 3,323          | 4,065          |
| Nova Scotia.....     | 17,810                     | 19,207                     | 21,659         | 15,156                               | 18,401         | 24,614         |
| New Brunswick.....   | 14,246                     | 15,605                     | 20,055         | 15,901                               | 17,352         | 25,547         |
| Quebec.....          | 103,281                    | 117,236                    | 151,372        | 107,928                              | 110,970        | 148,670        |
| Ontario.....         | 115,712                    | 132,911                    | 150,732        | 113,486                              | 124,777        | 161,752        |
| Manitoba.....        | 21,325                     | 24,199                     | 22,729         | 14,572                               | 16,958         | 19,218         |
| Saskatchewan.....    | 31,002                     | 34,992                     | 37,370         | 22,707                               | 27,851         | 35,337         |
| Alberta.....         | 27,416                     | 34,490                     | 36,598         | 22,623                               | 23,480         | 32,353         |
| British Columbia.... | 40,962                     | 46,057                     | 57,763         | 34,773                               | 39,505         | 57,322         |
| <b>Totals.....</b>   | <b>373,937<sup>1</sup></b> | <b>427,226<sup>1</sup></b> | <b>501,789</b> | <b>349,915</b>                       | <b>382,617</b> | <b>508,878</b> |

<sup>1</sup> Includes certain capital revenues offset against expenditures in 1946.

### Analysis of Revenues of Provincial Governments, 1946

| Source                                 | Amount  | P.C. of Total | Source                                | Amount         | P.C. of Total |
|--|---------|---------------|---------------------------------------|----------------|---------------|
|  | \$'000  |               |                                       | \$'000         |               |
| Taxes.....                             | 172,018 | 34.28         | Other revenue.....                    | 1,778          | 0.35          |
| Privileges, Licences and Permits—      |         |               | Sub-Total.....                        | 498,092        | 99.26         |
| Motor-vehicles.....                    | 37,944  | 7.56          | Non-revenue and surplus receipts..... | 3,697          | 0.74          |
| Other.....                             | 65,654  | 13.08         | <b>Totals.....</b>                    | <b>501,789</b> | <b>100.00</b> |
| Sales and services.....                | 14,539  | 2.90          |                                       |                |               |
| Fines and penalties.....               | 1,643   | 0.33          | Summary of Liquor Control Revenue—    |                |               |
| Other Governments—                     |         |               | Taxes.....                            | 8,854          |               |
| Dominion-Provincial Taxation Agreement | 83,982  | 16.74         | Permits.....                          | 13,737         |               |
| Dominion subsidies...                  | 15,134  | 3.02          | Fines and penalties..                 | 299            |               |
| Municipalities.....                    | 1,376   | 0.27          | Profits.....                          | 100,300        |               |
| Government enterprises                 | 104,024 | 20.73         | Confiscations.....                    | 22             |               |

### Analysis of Combined General and Capital Expenditures of Provincial Governments, 1946

| Function                                    | Amount  | P.C. of Total | Function                                  | Amount         | P.C. of Total |
|---|---------|---------------|---|----------------|---------------|
|   | \$'000  |               |   | \$'000         |               |
| General government...                       | 21,133  | 4.15          | Local government planning and development | 782            | 0.15          |
| Protection of persons and property.....     | 23,900  | 4.70          | Debt charges.....                         | 73,296         | 14.40         |
| Transportation and communications.....      | 135,133 | 26.56         | Contributions to Municipal Governments—   |                |               |
| Health and Social Welfare—                  |         |               | Shared-revenue.....                       | 5,244          | 1.03          |
| Health.....                                 | 56,472  | 11.10         | Subsidies.....                            | 3,270          | 0.64          |
| Social welfare.....                         | 44,148  | 8.68          | Contributions to government enterprises.. | 2,571          | 0.51          |
| Recreational and cultural services.....     | 2,397   | 0.47          | Other expenditures....                    | 1,061          | 0.21          |
| Education.....                              | 88,463  | 17.38         | Sub-Total.....                            | 506,179        | 99.47         |
| Natural resources and primary industries... | 45,502  | 8.94          | Non-expense and surplus payments.....     | 2,699          | 0.53          |
| Trade and industrial development.....       | 2,807   | 0.55          | <b>Totals.....</b>                        | <b>508,878</b> | <b>100.00</b> |



**Direct and Indirect Liabilities of Provincial Governments (less Sinking Funds), by Provinces, 1944-46, with Combined Details for 1946**

| Province                          | 1944                | 1945                | 1946                 | Detail                                | 1946                 |
|-----------------------------------|---------------------|---------------------|----------------------|---------------------------------------|----------------------|
|                                   | \$'000              | \$'000              | \$'000               |                                       | \$'000               |
| <b>Direct Debt—</b>               |                     |                     |                      | <b>Direct Debt—</b>                   |                      |
| P.E.I.....                        | 9,667               | 10,415              | 10,817 <sup>1</sup>  | Bonded debt.....                      | 1,672,225            |
| N.S.....                          | 88,722 <sup>2</sup> | 95,603 <sup>2</sup> | 96,330               | Less sinking funds.....               | 223,330 <sup>2</sup> |
| N.B.....                          | 93,403              | 99,128              | 102,550              |                                       |                      |
| Que.....                          | 376,082             | 366,429             | 354,618              | Net bonded debt.....                  | 1,448,895            |
| Ont.....                          | 646,715             | 639,547             | 649,150 <sup>1</sup> | Treasury Bills (held by)—             |                      |
| Man.....                          | 99,897              | 94,122              | 93,893               | Federal Government...                 | 175,712              |
| Sask.....                         | 205,441             | 194,463             | 200,767              | Others.....                           | 34,831               |
| Alta.....                         | 147,519             | 159,042             | 157,075              |                                       |                      |
| B.C.....                          | 140,749             | 147,985             | 152,324              | Total, Treasury Bills                 | 210,543              |
|                                   |                     |                     |                      | Savings certificates and              |                      |
| <b>Totals, Direct Debt.....</b>   | <b>1,808,195</b>    | <b>1,806,734</b>    | <b>1,817,524</b>     | deposits.....                         | 64,343               |
|                                   |                     |                     |                      | Temporary loans and                   |                      |
| <b>Indirect Debt—</b>             |                     |                     |                      | overdrafts.....                       | 3,111                |
| P.E.I.....                        | ~ 162               | 92                  | 50                   | Bonds due <sup>3</sup> .....          | 608                  |
| N.S.....                          | 2,729               | 2,721               | 2,574                | Bond interest due <sup>3</sup> .....  | 10,295               |
| N.B.....                          | 2,256               | 1,866               | 1,972                | Accounts Payable, etc.—               |                      |
| Que.....                          | 36,814              | 38,157              | 93,236               | Government enterprises                | 574                  |
| Ont.....                          | 127,734             | 117,705             | 113,301              | Trust funds and other                 |                      |
| Man.....                          | 2,531               | 2,313               | 1,506                | deposits.....                         | 26,954               |
| Sask.....                         | 1,824               | 1,852               | 788                  | Other.....                            | 33,636               |
| Alta.....                         | 6,254               | 1,935               | 1,193                |                                       |                      |
| B.C.....                          | 8,877               | 8,908               | 5,839                | Total, Accounts                       |                      |
|                                   |                     |                     |                      | Payable, etc.....                     | 61,164               |
| <b>Totals, Indirect Debt.....</b> | <b>189,181</b>      | <b>175,549</b>      | <b>220,459</b>       | Accrued interest, etc.....            | 18,565               |
|                                   |                     |                     |                      | <b>Total, Net Direct Debt</b>         | <b>1,817,524</b>     |
|                                   |                     |                     |                      | <b>Indirect Debt—</b>                 |                      |
| <b>Grand Totals....</b>           | <b>1,997,376</b>    | <b>1,982,283</b>    | <b>2,037,983</b>     | Guaranteed bonds <sup>3</sup> .....   | 178,534              |
|                                   |                     |                     |                      | Less sinking funds.....               | 2,975                |
|                                   |                     |                     |                      | Net guaranteed bonds <sup>3</sup> ... | 175,559              |
|                                   |                     |                     |                      | Guaranteed bank loans...              | 7,775                |
|                                   |                     |                     |                      | Other Guarantees—                     |                      |
|                                   |                     |                     |                      | Municipal Improvement                 |                      |
|                                   |                     |                     |                      | Assistance Act loans...               | 5,215                |
|                                   |                     |                     |                      | Other.....                            | 31,910               |
|                                   |                     |                     |                      | Total, Other Guarantees               |                      |
|                                   |                     |                     |                      | .....                                 | 37,125               |
|                                   |                     |                     |                      | <b>Total, Net Indirect Debt.....</b>  | <b>220,459</b>       |
|                                   |                     |                     |                      | <b>Grand Total.....</b>               | <b>2,037,983</b>     |

<sup>1</sup> Includes, in Prince Edward Island, \$50,000 Provincial Sanatorium Commission and, in Ontario, \$578,000 Niagara Parks Commission, which were excluded in previous years.

<sup>2</sup> Excludes \$2,766,943 sinking funds held by Nova Scotia Power Commission in respect of bonds issued by the Province and 1944 and 1945 figures revised to agree with treatment applied in 1946.

<sup>3</sup> Or debentures.

**Gross Provincial Bonded Debt, by Currency of Payments, 1943-46**

| Payable in—                             | 1943             | 1944             | 1945             | 1946             |
|---|------------------|------------------|------------------|------------------|
|   | \$'000 *         | \$'000           | \$'000           | \$'000           |
| Canada only.....                        | 978,401          | 979,545          | 967,965          | 1,030,826        |
| London (England) only.....              | 45,530           | 45,413           | 37,215           | 36,912           |
| London (England) and Canada.....        | 25,609           | 20,214           | 16,214           | 16,214           |
| New York only.....                      | 19,519           | 33,905           | 31,905           | 21,905           |
| New York and Canada.....                | 348,835          | 355,426          | 353,205          | 335,395          |
| London (England), New York and Canada.. | 261,652          | 238,963          | 230,423          | 226,237          |
| Other.....                              | 4,736            | 4,736            | 4,736            | 4,736            |
| <b>Totals.....</b>                      | <b>1,684,282</b> | <b>1,678,202</b> | <b>1,641,663</b> | <b>1,672,225</b> |



*Forest lookout station on Mount Eisenhower, Alta. The Federal and Provincial Governments expend considerable funds on the conservation of forest resources.*

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Total direct and indirect debt of Provincial Governments increased only moderately in 1946. Gross bonded debt, however, which amounted to \$1,672,225,000 in 1946, represented an increase of \$30,562,000 over the total for 1945. This was the first year since 1940 that provincial bonded debt increased over the previous year's total.

### *Municipal Finance*

Most of the settled portion of Canada is organized into municipal corporations under the jurisdiction and control of the Provincial Governments. Each province has its own characteristic municipal system, controlled in all but Prince Edward Island by a department of the government. Urban municipalities are incorporated as cities, towns and villages, while the rural municipalities have varying designations in different provinces such as counties, municipalities, municipal districts, parishes, townships or districts. In 1947 there were 3,987 incorporated municipalities in Canada.

**Municipal Assessments and Tax Levies.**—The major source of municipal revenue in Canada is direct taxation. Taxation revenue in turn



is largely derived from levies on the assessed values of real property. Both assessed values and tax rates have been increasing steadily since the beginning of the Second World War with a resultant growth in tax levies. Buoyant economic conditions have resulted in the collection of high percentages of current levies and the reduction of arrears in all provinces.

**Municipal Revenue.**—Estimated municipal revenue for 1947 was \$415,500,000 of which \$300,200,000, or 72.2 p.c., was derived from taxes on real property, \$46,500,000 or 11.2 p.c. from other taxes, and the remaining \$68,800,000 or 16.6 p.c. from other sources, including licences and permits, public utility contributions, provincial subsidies, and amounts received under Dominion-Provincial Taxation Agreements.

**Municipal Expenditure.**—Support of local schools again required the largest expenditure by municipal governments, totalling \$116,200,000 or 27.6 p.c. of all expenditure. Other services cost \$239,100,000 or 56.8 p.c. and debt charges together with provision for debt repayment \$65,900,000 or 15.6 p.c. Total expenditures were \$421,200,000. The 1939 total expenditure of \$329,038,000 was divided as follows: 25.0 p.c. for school support, 48.3 p.c. for other services and 26.7 p.c. for debt charges and debt retirement.

**Bonded Debt and Other Direct Liabilities.**—The rapid growth of municipalities, together with increased demands and responsibilities for improvements, schools and other services, has resulted in the incurring of a heavy burden of debt.

Reductions in recent years have been due to general curtailment of capital undertakings requiring debenture financing, the extension of provincial



*Municipal police-  
men of Montreal  
patrol Sherbrooke  
Street on horse-  
back.*



control over municipal borrowings and the fact that the greater part of the total municipal debt is represented by serial or instalment-type debentures requiring yearly repayments of principal. While the benefits of debt reduction are of course manifold, certain expenditures have been sorely needed in many communities for the rehabilitation of existing assets and for new improvements necessitated by normal expansion and development. These were sacrificed in the earlier years in the interests of the taxpayers and later, under wartime conditions, the policy of deferment was continued in order to free the financial market to the Federal Government for war-financing needs.

***Municipal Assessed Valuations, Tax Levies, Collections and Receivables, by Provinces, 1947, with Totals for 1941-46***

| Year and Province        | Valuations on which Taxes were Levied | Tax Levy  | Tax Collections (Current and Arrears) | Percentage of Levy | Total Taxes Receivable and Property Acquired for Taxes |
|--------------------------|---------------------------------------|-----------|---------------------------------------|--------------------|--|
|                          | \$'000                                | \$'000    | \$'000                                |                    | \$'000   |
| Totals, 1941.....        | 7,859,415                             | 272,458   | 237,680 <sup>1</sup>                  | 104·6 <sup>1</sup> | 237,133  |
| Totals, 1942.....        | 7,892,698                             | 275,983   | 239,110 <sup>1</sup>                  | 105·0 <sup>1</sup> | 208,406  |
| Totals, 1943.....        | 7,906,826                             | 278,697   | 298,196                               | 107·0              | 192,777  |
| Totals, 1944.....        | 7,963,405                             | 281,403   | 257,188 <sup>1</sup>                  | 109·2 <sup>1</sup> | 154,757  |
| Totals, 1945.....        | 8,155,068                             | 291,693   | ..                                    | ..                 | 134,021  |
| Totals, 1946.....        |                                       |           |                                       |                    |  |
| <b>1947</b>              |                                       |           |                                       |                    |  |
| Prince Edward Island     | 16,082                                | 446       | 456                                   | 102·4              | 233  |
| Nova Scotia.....         | 208,808                               | 12,055    | 11,437                                | 94·9               | 3,913  |
| New Brunswick.....       | 257,804                               | 8,023     | 7,673                                 | 95·6               | 2,799  |
| Quebec.....              |                                       |           |                                       |                    |  |
| Ontario.....             | 3,346,367                             | 135,402   | 133,406                               | 98·5               | 16,021   |
| Manitoba.....            | 481,159                               | 22,913    | 22,495                                | 98·2               | 8,329  |
| Saskatchewan.....        | 849,843                               | 29,337    | 28,712                                | 97·9               | 20,997   |
| Alberta.....             | 590,048                               | 26,291    | 26,474                                | 100·7              | 17,790   |
| British Columbia.....    | 487,636                               | 25,474    | 25,093                                | 98·5               | 9,401  |
| <b>Totals, 1947.....</b> | <b>..</b>                             | <b>..</b> | <b>..</b>                             | <b>..</b>          | <b>..</b>  |

<sup>1</sup> Excludes Quebec cities and towns.

***Municipal Bonded Debt and Sinking Funds, Selected Years 1919-45, and by Provinces, 1932 and 1947***

| Year      | Gross Bonded Indebtedness of Municipalities <sup>1</sup> | Total of Sinking Funds | Province          | Gross Bonded Indebtedness of Municipalities |           |
|-----------|--|------------------------|-------------------|---|-----------|
|           |  |                        |                   | 1932 <sup>2</sup>                           | 1947      |
|           | \$'000   | \$'000                 |                   | \$'000                                      | \$'000    |
| 1919..... | 729,715  | 3                      | P.E.I.....        | 2,129                                       | 2,997     |
| 1925..... | 1,015,950  | 3                      | N.S.....          | 31,606                                      | 34,821    |
| 1930..... | 1,271,390  | 3                      | N.B.....          | 24,753                                      | 26,519    |
| 1935..... | 1,372,026  | 267,709                | Que.....          | 463,614                                     | ..        |
| 1938..... | 1,302,201  | 269,736                | Ont.....          | 504,756                                     | 227,631   |
| 1939..... | 1,280,856  | 272,010                | Man.....          | 92,471                                      | 45,827    |
| 1940..... | 1,244,001  | 259,343                | Sask.....         | 59,238                                      | 26,408    |
| 1941..... | 1,196,491  | 261,459                | Alta.....         | 76,892                                      | 40,222    |
| 1942..... | 1,136,897  | 258,064                | B.C.....          | 129,333                                     | 110,648   |
| 1943..... | 1,074,777  | 254,864                |                   |   |           |
| 1944..... | 1,006,936  | 178,780                | <b>Total.....</b> | <b>1,384,792</b>                            | <b>..</b> |
| 1945..... | 965,450  | 168,365                |                   |   |           |

<sup>1</sup> Not entirely comparable due to incompleteness of data prior to 1939.  
<sup>2</sup> Debt for rural schools in the Maritimes not included.  
<sup>3</sup> Sinking fund totals not available previous to 1934; Alberta showed net debt to 1928.

**Direct and Indirect Liabilities of Municipal Governments (less Sinking Funds), by Provinces, 1944-47**

| Item                                    | 1944             | 1945           | 1946      | 1947      |
|---|------------------|----------------|-----------|-----------|
|   | \$'000           | \$'000         | \$'000    | \$'000    |
| <b>Direct Debt—</b>                     |                  |                |           |           |
| Prince Edward Island <sup>1</sup> ..... | 2,396            | 2,276          | 2,174     | 2,179     |
| Nova Scotia <sup>1</sup> .....          | 20,396           | 18,864         | 20,419    | 22,247    |
| New Brunswick <sup>1</sup> .....        | 16,802           | 19,214         | 18,350    | 20,387    |
| Quebec.....                             | 455,457          | 449,881        | ..        | ..        |
| Ontario.....                            | 241,879          | 224,271        | 213,460   | 243,445   |
| Manitoba.....                           | 46,509           | 43,444         | 42,874    | 50,266    |
| Saskatchewan.....                       | 71,818           | 60,984         | 51,724    | 34,077    |
| Alberta.....                            | 48,259           | 48,452         | 47,838    | 57,817    |
| British Columbia.....                   | 77,158           | 78,877         | 82,078    | 86,786    |
| <b>Totals, Direct Debt.....</b>         | <b>980,674</b>   | <b>946,263</b> | <b>..</b> | <b>..</b> |
| <b>Indirect Debt—</b>                   |                  |                |           |           |
| Prince Edward Island.....               | ..               | ..             | ..        | ..        |
| Nova Scotia.....                        | 854              | 699            | 674       | 636       |
| New Brunswick.....                      | 214              | 199            | 148       | 167       |
| Quebec.....                             | 2,992            | 2,754          | ..        | ..        |
| Ontario.....                            | 21,420           | 21,480         | 20,036    | 17,856    |
| Manitoba.....                           | 9,830            | 9,417          | 9,059     | 8,029     |
| Saskatchewan.....                       | ..               | ..             | ..        | ..        |
| Alberta.....                            | ..               | ..             | ..        | ..        |
| British Columbia.....                   | 11,376           | 11,316         | 13,797    | 14,440    |
| <b>Totals, Indirect Debt....</b>        | <b>46,686</b>    | <b>45,865</b>  | <b>..</b> | <b>..</b> |
| <b>Grand Totals.....</b>                | <b>1,027,360</b> | <b>992,128</b> | <b>..</b> | <b>..</b> |

<sup>1</sup> Excludes rural schools in Prince Edward Island and Nova Scotia.

## ★ Banking

**The Bank of Canada.**—The keystone of the Canadian banking structure is the Bank of Canada, incorporated in 1934 as a central bank of issue and rediscount. Its function is "to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action, and generally to promote the economic and financial welfare of the Dominion".

The Bank regulates the statutory cash reserves of the chartered banks, which are required to maintain not less than 5 p.c. of their deposit liabilities payable in Canadian dollars in the form of deposits with, and notes of, the Bank of Canada. The Bank also acts as the fiscal agent of the Government of Canada and may, by agreement, act as banker or fiscal agent for any province. It manages the public debt and has the sole right to issue notes for circulation in Canada. The Bank is empowered to buy and sell securities on the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; and to buy and sell bullion and foreign exchange.

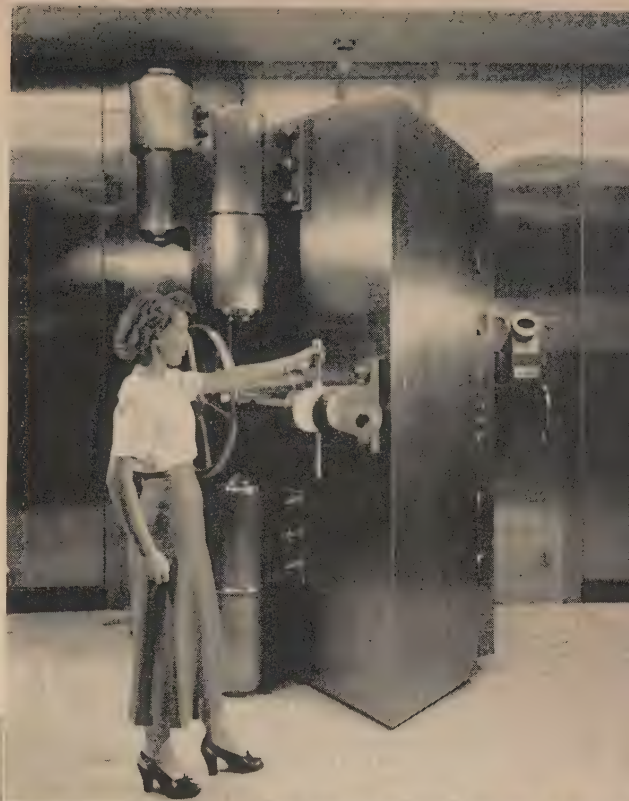
The Bank is managed by a Board of Directors appointed by the Government and composed of a Governor, Deputy Governor and eleven directors, the Deputy Minister of Finance being a member of the Board.

*New Bank of Montreal, Bay  
and King Streets, Toronto.*

*The 40-ton steel door, which  
guards the contents of 3,000  
safety deposit boxes, swings  
easily because of its delicate  
balance.*



*The banking rooms are spa-  
cious and airy, designed to  
meet the rapidly expanding  
banking needs of Toronto.*





**The Industrial Development Bank.**—The Industrial Development Bank, which commenced operations on Nov. 1, 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises; the bank does not engage in the business of deposit banking. The capital stock of \$25,000,000, now completely paid-up, was subscribed by the Bank of Canada. In addition, the Industrial Development Bank may borrow up to three times the amount of its paid-up capital stock and reserve fund, by the issue of bonds and debentures, thus providing total resources of \$100,000,000.

The following table shows the classifications of authorized and outstanding loans and investments as at Sept. 30, 1949.

**Loans and Investments of the Industrial Development Bank, by Provinces and Industries, as at Sept. 30, 1949**

| Classification                        | Authorized        | Out-standing      | Classification  | Authorized        | Out-standing      |
|---------------------------------------|-------------------|-------------------|---|-------------------|-------------------|
|                                       | \$                | \$                |   | \$                | \$                |
| <b>Provincial Classification—</b>     |                   |                   | <b>Industrial Classification—concl.</b>                 |                   |                   |
| P. E. Island.....                     | 60,000            | 42,842            | Paper products (incl. pulp).....                        | 4,100,700         | 3,725,248         |
| Nova Scotia.....                      | 492,808           | 412,921           | Printing, publishing and allied industries.....         | 672,300           | 500,546           |
| New Brunswick.....                    | 945,300           | 656,740           | Iron and steel products (incl. machinery and equipment) | 4,140,409         | 2,772,490         |
| Quebec.....                           | 11,188,212        | 7,835,903         | Transportation equipment.....                           | 1,016,558         | 803,370           |
| Ontario.....                          | 11,046,818        | 8,776,572         | Non-ferrous metal products.....                         | 31,500            | 7,230             |
| Manitoba.....                         | 1,251,250         | 932,719           | Electrical apparatus and supplies.....                  | 405,000           | 273,311           |
| Saskatchewan.....                     | 1,025,158         | 567,810           | Non-metallic mineral products.....                      | 1,959,291         | 1,295,457         |
| Alberta.....                          | 1,750,500         | 1,076,416         | Products of petroleum and coal.....                     | 890,000           | 490,002           |
| British Columbia and Territories..... | 4,334,900         | 3,273,703         | Chemical products..                                     | 2,357,000         | 1,990,392         |
| <b>Totals.....</b>                    | <b>32,094,946</b> | <b>23,575,626</b> | Miscellaneous manufacturing industries                  | 713,500           | 540,761           |
| <b>Industrial Classification—</b>     |                   |                   | Refrigeration.....                                      | 2,736,808         | 2,049,205         |
| Foods and beverages.                  | 4,413,700         | 3,177,938         | Generation or distribution of electricity               | 95,000            | 65,500            |
| Rubber products....                   | 25,000            | 24,180            | <b>Totals.....</b>                                      | <b>32,094,946</b> | <b>23,575,626</b> |
| Leather products....                  | 645,509           | 491,348           |   |                   |                   |
| Textile products (except clothing)    | 3,101,012         | 1,923,696         |   |                   |                   |
| Clothing (textile and fur).....       | 867,500           | 357,303           |   |                   |                   |
| Wood products.....                    | 3,924,159         | 3,087,649         |   |                   |                   |

**Commercial Banking.**—While the aggregate supply of money is determined by the central bank, it rests with the chartered banks to provide the individual credit requirements of commerce and industry of the public generally. There are ten banks chartered under the Bank Act and only they, and two long-established savings banks, in addition to the Bank of Canada, are legally entitled to call themselves "banks" or to use the word "banking" in connecting with their business.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day and, for a country such as Canada, vast in area and with a small population, the plan has proved a good one. There has been no bank failure since 1923 and note holders have experienced no losses whatever since 1881.

The ten commercial banks have over 3,400 offices spread out over the country, many located in small villages which would be quite unable to support an independent bank. The head offices of the banks neither take nor lend money—all the banking business is done by the branches, each branch enjoying considerable independence. But the fact that these branches are linked has a very important bearing on the country-wide economic situation.

The primary function of the bank is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country. Credit is given in various ways. Direct loans are made, the proceeds of which customers use for purchasing raw materials, paying wages and other operating expenses or for the purchase of goods for resale. Letters of credit are issued to finance the importation of goods. In this way the bank exchanges its well-known and acceptable credit for the less-known credit of its customers. Apart from the deposit and loan facilities provided, the banks render innumerable services to the communities in which they serve.

### *Statistics of Individual Chartered Banks as at Oct. 31, 1949, with Totals for Selected Years from 1930*

NOTE.—Annual figures are averages from the respective monthly statements except in the case of the numbers of branches which are as at Dec. 31.

| Bank and Year                        | Branches<br>in<br>Canada<br>and<br>Abroad <sup>1</sup> | Total<br>Assets | Liabili-<br>ties to<br>Share-<br>holders | Liabili-<br>ties to<br>the<br>Public | Loans<br>and Dis-<br>counts | Total<br>Deposit<br>Lia-<br>bilities <sup>2</sup> |
|--------------------------------------|--|-----------------|--|--------------------------------------|-----------------------------|---|
|                                      | No.  | \$<br>'000,000  | \$<br>'000,000                           | \$<br>'000,000                       | \$<br>'000,000              | \$<br>'000,000                                    |
| Bank of Montreal.....                | 486  | 2,140           | 84                                       | 2,055                                | 535                         | 1,964   |
| Bank of Nova Scotia.....             | 329  | 806             | 36                                       | 768                                  | 340                         | 728   |
| Bank of Toronto.....                 | 199  | 454             | 20                                       | 432                                  | 149                         | 420   |
| Provincial Bank of Canada.....       | 133  | 154             | 6  | 148                                  | 54                          | 145   |
| Canadian Bank of Commerce.....       | 504  | 1,646           | 60                                       | 1,583                                | 526                         | 1,507   |
| Royal Bank.....                      | 677  | 2,341           | 79                                       | 2,260                                | 654                         | 2,134   |
| Dominion Bank.....                   | 138  | 427             | 17                                       | 408                                  | 169                         | 389   |
| Banque Canadienne Nationale.....     | 230  | 422             | 14                                       | 408                                  | 140                         | 402   |
| Imperial Bank of Canada.....         | 190  | 519             | 17                                       | 500                                  | 193                         | 476   |
| Barclay's Bank (Canada).....         | 4  | 34              | 3  | 31                                   | 6                           | 23  |
| <b>Totals, as at Oct. 31, 1949..</b> | <b>2,890</b>   | <b>8,943</b>    | <b>336</b>                               | <b>8,593</b>                         | <b>2,766</b>                | <b>8,188</b>                                      |
| <b>Totals, 1948.....</b>             | <b>2,811</b>   | <b>8,324</b>    | <b>327</b>                               | <b>7,981</b>                         | <b>2,520</b>                | <b>7,601</b>                                      |
| <b>Totals, 1947.....</b>             | <b>2,718</b>   | <b>7,865</b>    | <b>327</b>                               | <b>7,528</b>                         | <b>2,298</b>                | <b>7,115</b>                                      |
| <b>Totals, 1945.....</b>             | <b>2,619</b>   | <b>6,743</b>    | <b>282</b>                               | <b>6,439</b>                         | <b>1,505</b>                | <b>6,160</b>                                      |
| <b>Totals, 1942.....</b>             | <b>2,642</b>   | <b>4,400</b>    | <b>281</b>                               | <b>4,102</b>                         | <b>1,370</b>                | <b>3,834</b>                                      |
| <b>Totals, 1939.....</b>             | <b>2,861</b>   | <b>3,592</b>    | <b>279</b>                               | <b>3,298</b>                         | <b>1,244</b>                | <b>3,061</b>                                      |
| <b>Totals, 1930.....</b>             | <b>3,598</b>   | <b>3,237</b>    | <b>305</b>                               | <b>2,910</b>                         | <b>2,065</b>                | <b>2,517</b>                                      |

<sup>1</sup> As at Dec. 31 of previous year. Does not include sub-agencies which numbered 661 in 1948, including four outside Canada.

<sup>2</sup> Excluding inter-bank deposits.

**Cheque Payments.**—Business operations consist of innumerable individual transactions, the great majority of which employ money either in the form of currency or cheques drawn against bank deposits. It is estimated that about 80 p.c. of the commercial transactions are financed by cheques which serve as an excellent index of the business trend at any given time.

In 1948, the amount of cheques cashed in clearing centres was the highest ever recorded in the history of the country. Contributing factors were the marked advance in prices, the replenishment of shortages in consumer goods



Premium accounting department of a life insurance company. The insurance business is Canada's greatest co-operative enterprise, providing protection and advantages to the individual through the pooling of resources by the many.

and record investment in housing, plant and equipment. Each of the five economic areas established a new record in 1948, indicating that the high level of business activity was general throughout the country.

Compared with 1947, the greatest relative increase occurred in the Prairie Provinces, followed closely by the Maritimes, while Quebec showed the smallest gain. As the Canadian total rose by more than 8 p.c. over the preceding year, Quebec and British Columbia lost in relative importance while the other three areas, having shown greater advances than the aggregate, gained in this connection.

Increases in cheques cashed were progressive for ten consecutive years, the level reached in 1948 having been far above that of the years prior to the War. The total was 160.9 p.c. higher than in 1938 and nearly 73 p.c. above that of 1929, the banner year of the inter-war period. Indicative of the continuing high level of business activity, the total of cheques cashed in the first nine months of 1949 was nearly 9 p.c. higher than the corresponding period of 1948. All five economic areas advanced in this comparison, and it is probable that the Canadian total will show a substantial increase for the twelve months.

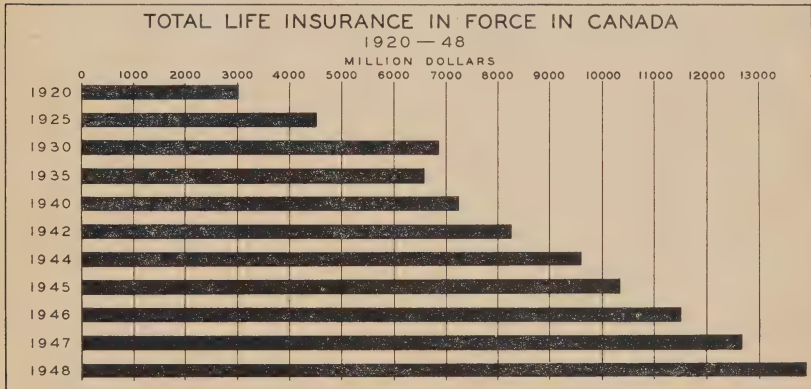
### *Cheques Cashed at Clearing-House Centres, 1944-48*

| Economic Area            | 1944           | 1945           | 1946           | 1947           | 1948           |
|--------------------------|----------------|----------------|----------------|----------------|----------------|
|                          | \$             | \$             | \$             | \$             | \$             |
| Maritime Provinces . . . | 1,327,660,964  | 1,553,590,758  | 1,604,018,266  | 1,750,654,723  | 1,970,079,395  |
| Quebec . . . . .         | 17,222,287,360 | 19,309,332,983 | 20,749,359,813 | 22,919,909,358 | 23,689,833,048 |
| Ontario . . . . .        | 26,902,944,561 | 31,543,361,615 | 30,401,955,884 | 30,433,876,385 | 33,381,605,192 |
| Prairie Provinces        | 11,488,439,812 | 11,562,164,231 | 11,124,679,682 | 12,853,736,283 | 14,602,310,298 |
| British Columbia         | 3,735,621,710  | 4,416,363,574  | 5,367,593,788  | 6,539,916,229  | 7,043,619,628  |
| Totals . . . . .         | 60,676,954,407 | 68,384,813,161 | 69,247,607,433 | 74,498,092,978 | 80,687,447,561 |



**Life Insurance.**—The life insurance business was introduced into Canada by companies from the British Isles and the United States about the middle of the nineteenth century. By 1875 there were at least 26 companies competing for the available business in Canada, as against 51 active companies registered under the Acts of Canada and a few provincial companies in 1948. Of the 51 active companies so registered, 30 were Canadian, 5 British, and 16 foreign.

As a result of the adaptation of life insurance policies to the needs of the public and of the growing wealth of the country, the increase in the amount of life insurance in force has been remarkable. The life insurance in force in Canada in 1869 was less than \$36,000,000 as compared with \$13,895,000,000 at the end of 1948, the latter figure including \$381,000,000 carried by provincial life companies and \$408,000,000 by fraternal benefit societies. Thus the total life insurance in force in Canada at the end of 1948 was \$1,078.55 per capita. The premium income from such business increased from \$97,000,000 in 1920 to \$230,000,000 in 1930, and to \$344,000,000 in 1948.



**Fire Insurance.**—As at Dec. 31, 1948, there were 274 fire insurance companies registered under the Insurance Acts of Canada and doing business in Canada, of which 63 were Canadian, 76 were British, and 135 were foreign companies, whereas in 1875, the first year for which authentic records were collected by the Insurance Department, 27 companies operated in Canada—11 Canadian, 13 British and 3 United States. The proportionate increase in the number of British and foreign companies from 59 to 77 p.c. of the total number is a very marked point of difference between fire and life insurance in Canada, the latter being carried on very largely by Canadian companies.

The enormous increase that has taken place throughout the years of record in the amount of fire insurance in force is due partly to the growth of the practice of insurance; it is also important as an indication of the growth of the value of insurable property in the country, and thus throws light upon the expansion of the national wealth of Canada. In 1869 the

amount was \$200,000,000, by 1900 it had increased to nearly \$1,000,000,000, by 1920 to just under \$6,000,000,000, by 1940 to over \$10,700,000,000, and by 1948 to over \$23,000,000,000; with the business of provincial companies and the business of Lloyds in Canada added, the 1948 figure exceeded \$25,600,000,000.

**Casualty Insurance.**—Casualty insurance includes: accident (personal accident, public liability and employers' liability); combined accident and sickness; aircraft; automobile; boiler (*a*) boiler, (*b*) machinery; credit; earthquake; explosion; falling aircraft; forgery; guarantee (fidelity and surety); hail; impact by vehicles; inland transportation; live stock; personal property; plate glass; real property; sickness; sprinkler leakage; theft; weather; and windstorm. In 1948 there were 266 companies reporting such insurance, of which 59 were Canadian, 73 British and 134 foreign.

Of the classes of business mentioned those accounting for the largest and the most rapidly increasing premium income are automobile, personal accident and sickness (including combined accident and sickness), and personal property for which the premiums written were less than \$36,000,000 in 1941 and over \$106,000,000 in 1948. In the same period the premiums for all the casualty classes increased from \$48,340,334 to \$132,497,876. Premium income of fraternal benefit societies, provincial companies and Lloyds brings the total to \$154,878,735.

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Cameron Falls, Waterton Lakes  
National Park, Alta.

*Courtesy, Department of Resources and Development*



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# *Canada 1951*

THE OFFICIAL HANDBOOK OF PRESENT  
CONDITIONS AND RECENT PROGRESS

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PUBLISHED BY THE AUTHORITY OF  
THE RIGHT HONOURABLE C. D. HOWE  
MINISTER OF TRADE AND COMMERCE

PREPARED BY THE  
DOMINION BUREAU OF STATISTICS  
DEPARTMENT OF TRADE AND COMMERCE  
OTTAWA

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## Foreword

THE "Canada" Handbook Series was initiated in 1930 to supplement the field of the *Canada Year Book* by offering to teachers and pupils in the public schools and to Canadian citizens generally a brief and attractive record of current economic conditions at a price within the reach of all. The *Year Book* is primarily a detailed reference work and is not designed to meet the need for a popular medium of this kind.

The past two decades have seen expansion of the national economy in every direction and, since a considerable proportion of space in the Handbook is allocated to illustrations, the editorial task of giving a well-balanced presentation in a publication of this size and at low cost becomes more difficult each year. Currently many thousands of copies are being distributed abroad through our Diplomatic and Trade Commissioner Services and it is desirable for this reason alone that the Canadian economy should be explained fairly completely.

A handwritten signature in black ink, reading "C. D. Howe". The signature is fluid and cursive, with a long horizontal stroke at the end.

*Minister of Trade and Commerce*

OTTAWA, February 1, 1951.





## Prefatory Note

*THIS Handbook has been prepared and edited in the Year Book Division of the Dominion Bureau of Statistics from material that has been obtained from the different Divisions of the Bureau and from Departments of the Federal Government. In certain special fields information has been kindly contributed by other Services.*

*The Handbook is planned to give a balanced picture of the general economic and social structure of Canada, the weight of emphasis being placed from year to year on those aspects that are currently of most importance, since there is not space to deal adequately with all. Chapter material has been brought up to date as at the time of going to press. The leading special articles in this edition deal with "Our Last Frontier—The Canadian North" and "Moving Alberta's Black Gold to Market". The former was contributed by the Department of Resources and Development and the latter was prepared from material supplied through Imperial Oil Limited by the Interprovincial Pipe Line Company, Edmonton, Alta.*

*H. Marshall*

*Dominion Statistician*

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## Symbols

The interpretation of the symbols used in the tables throughout this publication is as follows:—

- .. to indicate figures are not available.
- ... to indicate figures are not appropriate or not applicable.
- to indicate nil or zero.
- to indicate that the amount is too small to be expressed or where "a trace" is meant.
- p to indicate that figures are preliminary.

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A fishing party sets out for a day on Hanging Heart Lake, Prince Albert National Park, Sask. Mallard ducks enjoy the protection of this sanctuary.



*Courtesy,  
Canadian Government Travel Bureau*

'Hikers' rest above Maclaren Pond, Fundy National Park, N.B. Fundy Park, the latest addition to Canada's National Park System, was officially opened in July, 1950.



*Courtesy,  
Canadian Government Travel Bureau*





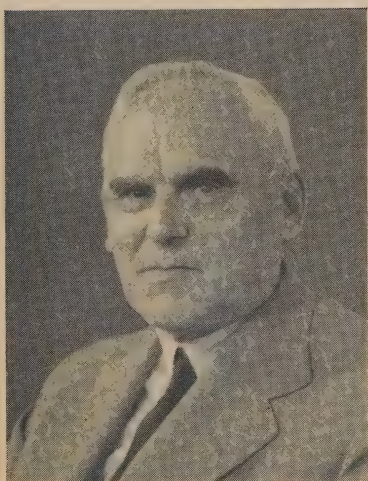
The *Brazilian Prince* being towed to mid-stream from Quebec Harbour.

*Courtesy, Canadian Government Travel Bureau*



# Introduction

## *Economic Conditions at the Close of 1950*



*The Right Honourable C. D. Howe,  
Minister of Trade and Commerce.*

ECONOMIC conditions at the close of 1950 must be viewed in the light of two fundamental considerations: the buoyant levels of employment, production and incomes which characterized the economy since the early part of the year, and the new demands for defence preparedness created by the international emergency.

While there was some hesitancy at the beginning of 1950, this was soon dispelled by increasing general activity, and by the autumn only 2·3 p.c. of the total labour force of 5,200,000 persons were without jobs and seeking work. The high level of employment, together with slightly longer average

hours of work per week, resulted in an increase in the physical volume of output. The index of the volume of industrial production showed a gain of approximately 6 p.c. for the first nine months of the year over the corresponding period of 1949. During the same period, average hourly earnings also showed an increase and were approximately 4 p.c. higher in the manufacturing, mining and building industries. Indications are that profits were likewise buoyant. Retail sales increased throughout the year, and although there was no distinct evidence of widespread 'scare' buying immediately following the outbreak of hostilities in Korea, the September level of sales was 9 p.c. above that of a year ago. Particularly noticeable was the increase in sales of new passenger cars, radios and electrical appliances.

Throughout 1949 and 1950 private capital expenditures were high and rising. However, at the beginning of 1949 it was apparent that in a number of industries post-war capital programs were nearing completion. New resource development, community facilities and housing were playing an increasingly important role in the total program and consequently the emphasis was tending to shift in the direction of construction and away from machinery and equipment. This change in pattern continued in 1950. Public and private expenditure is estimated at \$3,900,000,000 for 1950, considerably above 1949.

There were no additional demands upon Canadian productive facilities from the sphere of foreign trade, although the level of exports remained high. The increase of 4 p.c. in total value of exports in the nine-month comparison was entirely accounted for by price increases. On the other hand, the 9 p.c. increase in imports consisted of a 7 p.c. price increase and a 2 p.c. increase in quantity. An outstanding change occurred in the direction of exports, away from the more traditional markets of the Sterling Area and towards the United States. The combined result of the shift in exports towards the United States and higher imports from overseas presented a partial solution of the problem of sterling surplus and United States dollar shortage. Partly as a result of these changes, the reserves of gold and United States dollars increased to such an extent that the Canadian Government was enabled to complete the removal of virtually all emergency controls on imports and to allow the Canadian dollar to be determined by the free play of market forces for the first time since 1939.

The combined influence of larger consumer spending, increased outlays for capital expansion, rising prices for imports, and the high level of exports was to raise the general price level. Wholesale prices rose approximately 10 p.c. and retail prices as measured by the cost-of-living index rose 6 p.c., from January to November, 1950.

The defence emergency brought about by the Korean situation has imposed further demands upon the economy. Defence expenditures were expected to amount to \$670,000,000 for the fiscal year 1950-51, in contrast with \$380,000,000 in 1949-50. Future defence expenditures are at present expected to approximate \$1,000,000,000 per year.

The inflationary possibilities inherent in the new situation were recognized by the Government in legislation passed at the emergency session of Parliament in September, 1950. Additional taxes were levied on corporation incomes and certain non-essential commodities. Reductions in federal public works construction and farm improvement loans, and a limitation on the lending value of new houses built under the National Housing Act, were announced as a part of the Government's anti-inflationary program.

Other measures have also been instituted. Restrictions were imposed on the use of consumer credit, and the Bank of Canada raised its rediscount rate to 2 p.c. The Essential Materials (Defence) Act gave the Government power to allocate and to control the prices of essential materials and services.

**Production and Employment.**—During the first nine months of 1950, the index of the volume of industrial production was nearly 6 p.c. higher than the comparable period of 1949. Both mining and electric power reached historical peaks while manufacturing output was fast approaching the high wartime levels of 1943 and 1944. Available data also indicate that the total volume of agricultural production will be significantly higher in 1950.

In the past year, marked progress was made in the development of newly discovered mineral resources. During the first nine months of 1950, producers' shipments of domestic crude petroleum totalled 20,296,000 bbl., an increase of more than 29 p.c. over the same period of 1949. This advance in production reduced our dependence on petroleum imports from the United States relative to the amount consumed. Domestic production of crude oil represented 22 p.c. of the total consumed by Canadian refineries. During the comparable



The multi-million-dollar plant of General Motors Diesel Limited, London, Ont., was officially opened Aug. 11, 1950. The plant, geared to turn out one diesel locomotive a day, employs 1,000 persons.

The first completed engine, built while the plant was still under construction, was on display at the opening.

period of 1950, despite an increase of  $12\frac{1}{2}$  p.c. in consumption, oil from domestic wells accounted for 25 p.c. of the total consumed. The development of crude oil resources is limited only by the rate of construction of transportation and refining facilities. The oil pipe line from Edmonton, Alta., to Superior, Wis., was put into operation in the autumn of 1950.

Further progress is also being made in the development of the extensive iron-ore deposits near the Quebec-Labrador boundary. In view of the critical international situation and the gradual depletion of United States iron-ore deposits, this new source of supply is of vital importance. These and other promising mineral discoveries in the past few years will contribute to the continued development of Canada's industrialization program.



The volume of manufacturing output in the first nine months of 1950 recorded a gain of 5 p.c. over the same period of 1949. This is the fourth consecutive year during which increases were shown over the preceding year and it is characteristic of the steady expansion of the Canadian economy in the post-war period. The rate of domestic steel production was the highest on record. During the first nine months of 1950, output of steel ingots and castings was more than 4 p.c. above that for the same period of 1949. Despite this increase, total steel supplies were adversely affected by a drop of about 26 p.c. in imports of primary iron and steel shapes. This was due to increased requirements for steel in the United States and the ensuing decline in exports from that country.

As evidence of the strong demand for consumers' durables, large gains were recorded in the production of motor-vehicles, radios and electric refrigerators. More passenger cars were manufactured during 1950 than in any other year in the nation's history. In the first nine months, 212,000 units were shipped from Canadian plants, an increase of 51 p.c. over the comparable period of 1949.

The high level of activity in construction was reflected in advances for the first nine months of 1950 of 8 p.c. in sawn lumber and nearly 4 p.c. in cement output. Significant gains in production were also recorded in other building materials such as asbestos, gypsum, concrete brick and blocks, building brick, asphalt shingles and cast-iron soil pipe.

Despite August frosts and unfavourable harvesting and threshing weather, the November estimate of 1950 field crops placed wheat production at 462,000,000 bu., or 95,000,000 bu. above the 1949 crop of 367,000,000 bu. and 17 p.c. above the previous ten-year average. However, a large part of this crop was of very low grade. Production of coarse grains was also up markedly from 1949 levels. Inspected slaughterings of live stock rose by 6 p.c. during the first nine months while the output of creamery butter and factory cheese dropped 5 p.c. and 13 p.c., respectively.

At the beginning of 1950, poor prospects for forest products contributed to rising unemployment. On Mar. 4, unemployment was 6 p.c. of the total labour force. This was higher than at any time in the post-war period. However, the seasonal upswing coincided with the emergence of boom conditions in the United States and there ensued a remarkably swift improvement in the state of the labour market. The index of employment for eight leading industries, which for the first few months of 1950 had lagged behind the comparable period of 1949, showed a strong recovery in the second half of the year. On Oct. 1, the index was  $3\frac{1}{2}$  p.c. higher than on the same date of 1949. The number of persons without jobs and seeking work was only 2.3 p.c. of the total civilian labour force.

**Personal Income and Expenditure.**—Personal income during 1950 reflected the impact of the high level of economic activity. The combined effect of high employment, slightly longer hours of work, and increased hourly earnings was an increase in labour income. The total for the first nine months was \$5,955,000,000, 6 p.c. above the corresponding period of 1949. Despite a good crop year, a small drop was expected in net income of farm operators from current farm production. The main reasons for this were the reduced initial price for wheat paid by the Canadian Wheat Board, the low grade of wheat harvested, and the fact that the 1949 figures included

unusually large grain adjustment payments. Other components of personal income showed increases, however, and the total of personal income in 1950 was higher than in any previous year. The higher level of personal income was accompanied by a rise in personal expenditure on goods and services.

The total value of retail sales during the first nine months of 1950 was 6 p.c. above the corresponding period of 1949. The largest increase in sales was for new passenger cars, which were two-thirds higher in the first nine months of 1950 than in the same period of 1949. Sales of the products handled by radio and appliance stores were 13 p.c. higher. Food expenditures rose slightly, but since prices also increased there was little change in the quantity of food sales. On the other hand, a decrease in clothing expenditure of about 8 p.c. occurred in this period.

The general increase in expenditures in 1950 was not entirely financed by increased incomes. Instalment sales in 1950 rose about one-quarter over 1949, including an increase of two-thirds in instalment sales of motor-vehicles, and a 25 p.c. rise in instalment sales of household appliances. Government restrictions on instalment purchases are mentioned on p. 17.

**Capital Expansion.**—A preliminary estimate indicates that total capital expenditure, including both public and private expenditure, was about \$3,900,000,000, or \$500,000,000 higher than in 1949. A part of this increase was due to the generally higher level of unit costs, but a substantial increase in real investment also took place.

Data on housing completions to the end of August, 1950, indicate that activity was somewhat greater than in 1949. Although the number of houses completed during the first eight months lagged behind, there were more units started during the period and more under construction at the end of the period than was the case in 1949. The proportion built for rental purposes was about 28 p.c., the same as in 1949. In the field of capital investment other than housing, an increase was recorded in non-residential construction; purchase of new equipment and machinery showed little increase and in some instances actual declines occurred.

At the end of the third quarter, increases in value of inventory on hand were recorded for most industries. The index of manufacturers' inventories was 5.5 p.c. higher than a year before, but since prices had advanced considerably it seems likely that the physical volume of manufacturing inventories was somewhat lower than at the end of September, 1949. On the other hand stocks of grain were higher than a year before.

**Foreign Trade.**—The highlights of 1950 in Canada's external trading relationships were the marked shift in sales away from traditional markets towards the United States and the subsequent increase in reserves of United States dollars. In addition, the high level of activity in Canada gave rise to an increase in the value and volume of imports, facilitated by the progressive removal of import restrictions. The gradual recovery of production in Europe and the improved competitive position of the European seller in the Canadian market, following the realignment of currencies in September, 1949, contributed to the shift towards European sources of supply.

The total value of commodity exports was higher by approximately 4 p.c. in 1950 on the basis of a nine-month comparison. The value of imports was higher by 9 p.c. These increases were accompanied by price increases of

4 p.c. and 7 p.c. for exports and imports, respectively, with the consequence that there was no change in the volume of exports, and a small increase of 2 p.c. in the volume of imports.

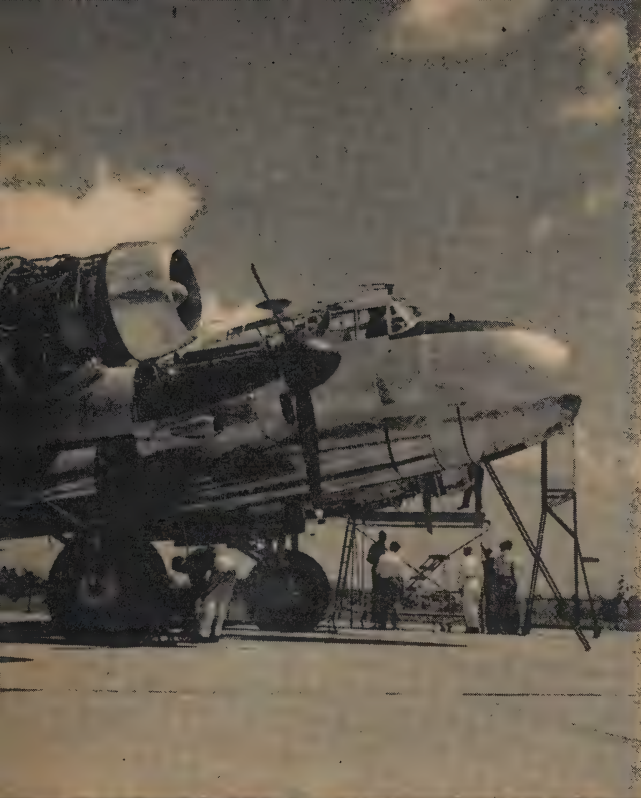
The most significant development in commodity trade, the shift in the direction of sales, can be seen in the statistics of trade with the United Kingdom and the United States. Canadian exports to the United Kingdom declined by 35 p.c. in the comparable nine-month periods, while purchases from the United Kingdom increased by 21 p.c. At the same time, Canadian exports to the United States increased by 40 p.c., and there was a relatively insignificant increase of 4 p.c. in imports from the United States.

Although the shift in the origin of imports was not as spectacular as the change in direction of export trade, it helped to bring about a near balance in the accounts with Canada's two principal trading partners—the United States and the British Commonwealth. The reduction of Canada's traditional sterling surplus, together with the large increase in sales to the United States, represented a partial solution of the foreign exchange problem which had been prominent since the beginning of exchange control in 1939. It will be recalled that extensive import restrictions had to be imposed in November, 1947, at a time when the drain on Canada's gold and foreign exchange reserves had reached dangerous proportions. By the autumn of 1948, reserves had recovered to a level which made it possible to begin a process of relaxation of restrictions. By the end of June, 1950, about one-half of the original restrictions had been lifted with the remainder due for removal on Jan. 2, 1951, except for certain items in the capital goods schedule. Between November, 1947, and September, 1950, holdings of gold and United States dollars rose from \$480,000,000 to \$1,789,000,000.

In addition to the restrictions on non-essential imports under the Emergency Exchange Conservation Act of 1947, a number of other important factors contributed to the recovery in the United States dollar position. The high level of business activity in the United States gave rise to increased Canadian exports to that country. Further, payment for a larger portion of Canada's sales to the United Kingdom and other E.C.A. countries was received in United States dollars, as a smaller part of the exports to these countries was financed by credit. Net receipts of dollar exchange from overseas were \$638,000,000, \$763,000,000 and \$663,000,000 in 1947, 1948 and 1949, respectively. In addition, there occurred a net inflow of capital from the United States as a result of a Government of Canada bond issue of \$150,000,000, a substantial direct investment in Canadian business, and a net surplus on transactions in portfolio securities.

The improvement of Canada's trade and exchange position with the United States and the growing belief that early action might be taken to restore the Canadian dollar to parity with the United States dollar gave rise to an extraordinary influx of United States capital in the late summer of 1950. According to the Finance Minister, this was, in part, useful long-term investment in Canadian business based on a belief in the long-run soundness of Canadian financial and economic conditions. To a large extent, however, particularly in August and September, it was a speculative movement. Canada's official reserves of gold and United States dollars, which stood at \$1,255,000,000 on June 30, increased by \$65,000,000 during July, \$184,000,000 during August, and by \$285,000,000 in September, a total increase of \$534,000,000.





Canadian designed and built Avro Orenda turbojet engines are air-tested in a converted Lancaster bomber and are seen here on the outboard positions. The Orenda powers the CF-100 fighter, first all-weather, long-range, day and night fighter of its type.

The first group of R.C.A.F. pilots, navigators and maintenance crew take a familiarization course on the CF-100 fighter.



On Sept. 30 the Government decided to cancel the official rates of exchange, leaving the exchange value of the Canadian dollar to be determined by the forces of supply and demand. The dollar immediately rose in terms of United States dollars, and at mid-November the buying rate for United States dollars was approximately \$1.04.

Following upon the announcement by the Government in August that controls governing the importation of a substantial number of commodities under the Emergency Exchange Conservation Act would be relaxed, effective Oct. 1, the Government further announced on Sept. 30 that restrictions would be removed on all the remaining items on the prohibited list and the quota list, effective Jan. 2, 1951. This meant that emergency exchange controls governing importation of the whole range of consumer goods would be removed. The remaining controls apply only to 50 items on the capital goods list, subject to review by the Minister of Trade and Commerce. It was also announced on Oct. 4, that Canadian residents would in future be able to obtain permits for any reasonable amount of travel expenditure in the United States.

**Wholesale and Retail Prices.**—At the beginning of 1950 wholesale prices were undergoing a reversal of their downward tendency of the preceding year, although the upward movement of the total index was very gradual. Then, between April and September, 1950, the index rose substantially, moving from 160.1 to 173.6 (1926=100). Sharp deterioration in the international situation culminating finally in open warfare in Korea was reflected in substantial price increases in a variety of commodities, including those imported from the Far East. In addition, continuance of the building boom lent support to further increases in prices of lumber and other materials used by that industry. For the nine months ended September, 1950, the general wholesale price index was 4 p.c. above the same period of 1949.

The cost-of-living index also continued upward in 1950. Sharp price increases occurred for items of both domestic and foreign origin. Rents rose considerably following the relaxing of price ceilings allowing landlords to advance rents by 18 p.c. for unheated and 22 p.c. for heated accommodation. The service groups were relatively stable. The total cost-of-living index rose from 161.0 for Jan. 1, 1950, to 170.7 by Nov. 1, 1950, an increase of 6 p.c. Higher retail food prices accounted for 60 p.c. of the total increase while rental advances were responsible for 25 p.c. In the first nine months of 1950, the total index showed an increase of 3 p.c. over the same period of 1949.

**Government Economic Measures and Public Finance.**—As the international crisis deepened and defence preparedness began to dominate the economic scene, certain fiscal and economic measures were instituted by the Federal Government. Defence outlays, which amounted to only \$195,000,000 in 1947-48, have been rising steadily during the past three fiscal years. Estimated expenditures for 1950-51 are placed at around \$670,000,000 and the future outlook is for a rate of expenditures of about \$1,000,000,000 a year.

The so-called "baby budget" of Sept. 7, 1950, was the first of the measures designed to accelerate defence preparedness and to combat the growing pressure on prices. To the extent that the proposed new military expenditures could not be met out of current revenues, new taxes were levied on corporation incomes and certain non-essential commodities. Reductions in federal public works construction and farm improvement loans, and a limitation on the

lending value of new houses built under the National Housing Act, were announced as a part of the Government's anti-inflationary program.

The change in the rediscount rate of interest from  $1\frac{1}{2}$  p.c. to 2 p.c., announced by the Bank of Canada on Oct. 17, 1950, was a further measure designed to curb inflationary tendencies. Since commercial banks are not at present borrowers from the Central Bank, the direct effects of the change are not likely to be great, although in the long-run the new rate can be expected to exercise some restraint on the volume of credit.

The Consumer Credit Act which came into effect on Nov. 1, 1950, embodied restrictions designed to deal with the pressure on prices exerted by the growing volume of consumer instalment purchases. Larger down payments and shorter periods of repayment were called for in the new regulations.

In order to ensure the supply of essential materials for defence, the Essential Materials (Defence) Act was passed by the House of Commons on Sept. 12, 1950, giving the Minister of Trade and Commerce special powers over the production, allocation, distribution and price control of materials and services considered essential for defence purposes. A Statement of Principles for Economic Co-operation between Canada and the United States was confirmed on Oct. 26, 1950, with the object of co-ordinating the efforts of these two countries in matters of military procurement, economic controls and the use of essential raw materials. On Nov. 8, 1950, an agreement was reached whereby each country extends to the other equal priority assistance to that accorded its own defence contracts. By the end of the year, a formal priority system had been instituted regarding the allocation of steel.

In addition to the foregoing measures to combat inflationary tendencies and to ensure the priority of defence orders with respect to essential raw materials, other important economic measures were taken by the Government in 1950 in connection with the relaxation of import controls and the removal of restrictions on travel expenditures in the United States, referred to above.

The total expenditure of the Federal Government for the first seven months of the fiscal year ending Mar. 31, 1951, was \$1,172,000,000, an increase of 3 p.c. over the corresponding period of the previous fiscal year. However, if the special non-recurring charge of \$62,000,000 in 1949-50, due to the assumption of Newfoundland's debt, is eliminated the increase in expenditure is approximately 9 p.c. Defence spending accounted for \$57,000,000 of this increase, while special expenditures arising out of the Winnipeg flood disaster, higher contributions to old age pensions, higher family allowances and higher subsidies and tax rental payments to the provinces accounted for most of the balance.

Federal revenue for the first seven months of the fiscal year 1950-51 amounted to \$1,535,000,000, compared with \$1,442,000,000 for the same period the previous year, an increase of about 6 p.c. Higher levels of private income and expenditure which raised current direct and indirect tax receipts over 1949, together with the new tax measures introduced in the "baby budget" on Sept. 7, were responsible for the increase.

At the provincial and municipal level, current information with regard to both revenues and expenditures is lacking, but the forecast of intentions (revised June, 1950) indicates a rise of 24 p.c. over 1949 in provincial capital expenditure and of 17 p.c. in municipal capital expenditure.





*Fort Smith, on the Slave River just north of the Alberta-Northwest Territories boundary, is the administration headquarters for the Mackenzie District of the Northwest Territories. Its facilities include a hospital, schools, missions, Government radio and meteorological stations and a landing field.*

# Our Last Frontier— The Canadian North

TO the early explorers who first penetrated the northern latitudes, the cruel harshness of nature and the apparent barrenness of the scene that spread itself before them on all sides were the chief impressions left on their minds. According to the literature they left behind them, they were much dismayed by what they saw there. For instance, in 1587, John Davis wrote, "no viewe of wood, grasse or earthe to be seene, and the shore two leagues into the sea full of yce. The . . . irksome noyse of the yce was such as to breed strange conceits among us".

But in spite of the monotonous distances and the severe climate of that formidable land, which at first glance must have seemed like a bone picked clean, the white men persevered. Economically speaking, they were drawn on by the hope of finding a northwest passage to the riches of the Indies, by the wealth to be won from whaling in Arctic waters, and by the fabulous profits to be made by draping the furs of the north country over the fairest shoulders of Europe. They were unaware of the wealth in minerals that lay beneath the snows—the mineral wealth that to-day provides the impetus for the continuing development of the North.

There was, of course, more to it than this purely economic concept. At that time, when the European nations were spreading culture over the unknown parts of the world, the spirit of adventure in man seems to have run higher than ever before or since. Men adventured and died purely for the sake of knowing what lay beyond the next hill. Sir John Franklin, for instance, could not rest until the straight dotted line on the British Admiralty chart of the Arctic Coast of North America was replaced by a heavy black line showing every bleak inlet, bay and headland.

Since those days when every trip into the North held the promise of hardship and death, science has modified the white man's attitude towards that land. The aeroplane has reduced the element of hardship in travel, and the radio has lessened the feeling of isolation from the outside world. In the larger centres, modern homes have replaced rough log cabins and the amenities of central heating, electricity, and running water are commonplace. In many places the earth is cultivated through the long days of the Arctic summer and it would be difficult to find a permanent home that did not have its own garden patch. In Yukon, particularly, the home garden has made the people almost self-sustaining horticulturally, a fact that the early explorers would have had difficulty in believing.

In spite of these modifications of thought, the North is still a frontier—the last in North America and one of the last in the world. But the term "frontier", as applied to the Canadian North, should be qualified. The usual connotations of "frontier" are backwardness, isolation, and lack of the benefits of civilization. In these senses, the Canadian North is unlike any of the

frontiers that came before it chronologically, because the whole weight of the technical knowledge of the twentieth century has been brought to bear on its development. It is the aeroplane and not the covered wagon that is pushing forward the boundaries of civilization in the Canadian North.

Thus, the picture of the North to-day is a composite one, and in some ways a contradictory one. In small patches where the mineral wealth is most readily available the process of civilization is virtually complete, and yet over the greater part of the vast stretches of barren land it is as if man had never existed.

### *Physical Characteristics*

In physical terms, Yukon and the Northwest Territories stretch more than 2,500 miles from Davis Strait on the east to Alaska on the west. They are bounded on the south by the sixtieth parallel of latitude and on the north by the Arctic Ocean, and include the islands in the Canadian sector of the Arctic Ocean reaching to the North Pole. They comprise approximately 1,500,000 square miles, more than one-third of the whole area of Canada, and have a population of approximately 12,000 Indians and Eskimos and as many white persons. The population density—or rather sparsity—is thus about one person to every 60 square miles.

The Canadian North can be divided from east to west into three main sections. The Precambrian Shield portion of the Northwest Territories extends for about 1,000 miles from Hudson Bay on the east to the Mackenzie River Valley on the west. It consists largely of hummocky ground, with the ridges and hills separated by depressions occupied by lakes or muskegs. The countless lakes are of all sizes and shapes, with irregular shorelines and many small islands. From the air, much of the terrain resembles a flat field dotted with puddles after an exceptionally heavy rain. The Mackenzie lowland is a northward extension of the Interior Plains of central Canada and consists of the Mackenzie River Valley and a low-lying depression extending from Great Slave Lake north to Great Bear Lake. This area is relatively fertile and is well wooded with poplar, spruce and jack pine. The Yukon Highlands, which properly include the Mackenzie Mountains in the Northwest Territories, is an extension of the great Cordilleran Region of Western Canada. It is a region of hills and mountains separated by a network of large valleys. The central feature is a great basin-like area called the Yukon Plateau which is drained by the Yukon River and walled in on the north, east and southwest by mountains.

From north to south the country can be divided into the barren and treeless Arctic Islands, or Arctic Archipelago, the so-called "barren-lands" or treeless portion of the mainland of the Northwest Territories, and the more southerly timbered portion of those Territories. Although the actual line of demarcation between the wooded and treeless areas is very irregular and broken, it runs roughly from the mouth of the Churchill River at Hudson Bay, northwest to the Mackenzie Delta.

The Arctic is often referred to as Eastern and Western, the former being that part most easy of access by boat from the east and the latter the part that is usually entered via Western Canada and the Mackenzie River system.

The main inroads of civilization into the North have been made for the most part along the Yukon River and the Alaska Highway in Yukon and in



the Mackenzie River Valley and around Great Slave Lake in the Northwest Territories. Here are the largest centres, Whitehorse in Yukon and Yellowknife in the Northwest Territories, both with populations in the neighbourhood of 4,000. Throughout the Eastern Arctic and on the Arctic Islands are scattered Missions of various religious orders, Royal Canadian Mounted Police posts, government weather and scientific stations, and the fur-trading posts of the historic Hudson's Bay Company.

The climate ranges from extremely cold to reasonably moderate. A temperature of 81 degrees below zero has been recorded at Snag in Yukon, and yet, except on the Arctic coast and islands, the summer days are long and warm. Snowfall in the north is not heavy, in spite of the popular notion of incessant storms raging across the barren lands. Because of the cold weather, however, the snow that does fall remains on the ground for a long time. In general, it might be said that the climate makes it difficult, but not impossible, to live there.

## *Resources*

**Mining.**—In assessing the wealth of a region and the possibilities of its economic development, the most relevant factors are its physical resources, its accessibility and its people. For the North, there is no doubt that the resources on which its future depends are its minerals. At the present time, however, the factor of accessibility plays a determining role. For instance, in the well known Yellowknife mining district, it is not profitable at present to mine ore that averages less than 0.45 ounce of gold per ton. If this same ore occurred in the mining districts of northern Ontario it would be fabulously rich, because there it is profitable to mine ore that contains as little as 0.15 ounce of gold per ton. Thus, locked in the northern reaches of the Precambrian Shield are tremendous reserves of ore that will be developed when the problem of transportation is solved. In the meantime, however, development goes forward steadily in the richer and more accessible areas.

The history of mining development in the North is a short one. The great Klondike strike in Yukon in 1896 was the beginning. In the rush that followed, the population of Dawson city boomed to 25,000 and in the short space of seven years more than \$100,000,000 worth of gold was taken out by placer mining. As the easily worked deposits dwindled, prospectors searched the Mayo area and, in the 1920's, \$28,000,000 in silver-lead ore was taken out; in the same period oil in commercial quantities was discovered at the site now known as Norman Wells. The first well was drilled there in 1920. In 1929 and 1930, radium- and silver-bearing ores were discovered on the east shore of Great Bear Lake, only a short distance south of the Arctic Circle. There is no doubt that these now-established radium and uranium deposits alone will make Canada one of the important countries in the new atomic age.

In 1933 and 1934 new gold finds were made in the Yellowknife River area in the Northwest Territories, and by 1935 a major gold rush had developed. The lead-silver deposits of the Mayo area in Yukon became important in 1945 because of world demand and high prices, and production increased greatly. In 1946, for similar reasons, interest revived in the previously known lead-zinc deposits at Pine Point on the south shore of Great Slave Lake.

*Mining Developments in the Northwest Territories.*—The most recent reports on developments in the mining districts of the Northwest Territories indicate that there is general optimism as a result of recent work, both in the immediate vicinity of Yellowknife and in the outlying districts. Giant Yellowknife Gold Mine, the leading producer in the Territories, now employs 350 men and has constructed some of the finest mining buildings in Canada. The policy of providing the best in living quarters and recreational facilities for employees has reduced the labour turnover markedly, and is eliminating the air of impermanence, characteristic of new mining developments.

Other important producing mines in the Northwest Territories are Negus, Con Rycon, and Discovery, the latter the most recent to come into production. Value of mineral production in 1949 was \$6,801,729, of which \$6,389,748 was in gold. The total value of minerals produced in the Northwest Territories to the end of 1949 was \$31,721,499.

As the above figures indicate, gold is economically the most important mineral in the Northwest Territories. In addition, commercial quantities are produced of radium and uranium (information concerning which is confidential), silver, and petroleum products. There are also known occurrences of nickel, copper, tungsten, tantalum, beryllium, lithium and coal.

The area in which the most intensive exploratory work has been undertaken in recent years is Pine Point on the south shore of Great Slave Lake. The rich lead-zinc deposits there were first discovered in 1898 by Klondike gold miners, but at that time it was not economic to develop them. Serious work was begun in 1929, and \$300,000 was spent on geological work, diamond drilling and test pitting. Approximately 500,000 tons of ore had been blocked out when the work was brought to a halt by the depression in 1929. The advance in base-metal prices brought renewed interest to the area in 1946. Since then, more than 48,000 feet of diamond drilling has been done and more than 100 miles of road and two airstrips have been built.

Petroleum production at the present time is confined to the Norman Wells area and these reserves alone would make the Northwest Territories self-sufficient in oil in the foreseeable future. But now the search for oil in Alberta has reached the northern boundaries of that Province and is extending into the Territories. Permits have been issued for exploratory work in the vicinity of Fort Providence. The permits cover an area of more than 2,000,000 acres and at least \$100,000 will be spent by the investigating parties during the latter half of 1950 and in 1951.

*Mining Developments in Yukon.*—The value of mineral production in Yukon in 1949 was \$5,099,176, of which \$2,950,920 was for gold. The value of gold production increased by \$829,430 over the previous year.

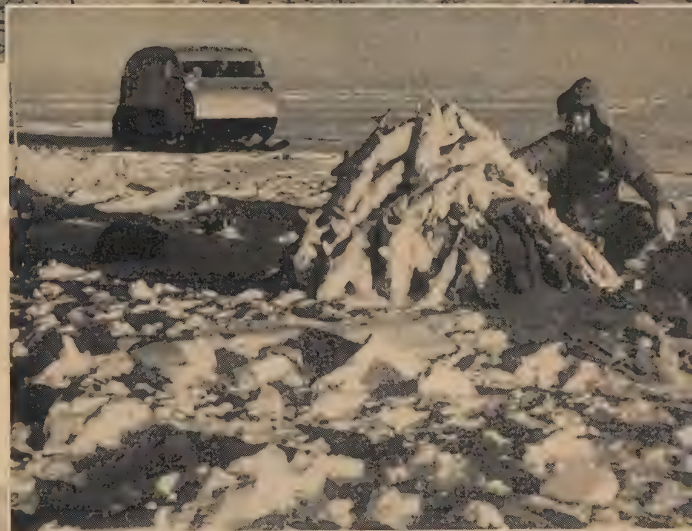
The three mining districts are Dawson, Mayo and Whitehorse. Virtually all of the gold produced in Yukon is from placer operations, mainly in Dawson District. The rich deposits of galena and sphalerite on Galena Hill in the Mayo District account for the silver, lead and zinc production. Some placer and coal mining is done in the Whitehorse District.

For some time now, mineral production in Yukon has been relatively stable. However, much of the country has not been thoroughly prospected even though the geology of these areas is favourable for the occurrence of minerals. Recently, prospecting activity has increased, particularly in the

Giant Yellowknife Gold Mine, potentially one of the largest gold mines in Canada.



Frozen whitefish from Great Slave Lake being picked up by snowmobile.



Cabbages growing in an irrigated market garden near Yellowknife.





Whitehorse and Mayo Mining Districts, as there are known occurrences of lead, zinc, copper, lode gold, silver, antimony, manganese, placer gold, molybdenite, coal, tungsten and tin. Helicopters are being used to increase the range of prospecting and the chief activity has taken place around Whitehorse and in the Kluane Lake and Carmacks areas. Also it is felt that the systematic use of magnetometer and electrical resistivity surveys, which have proved useful under similar conditions in other parts of Canada, may locate new commercial ore bodies in Yukon.

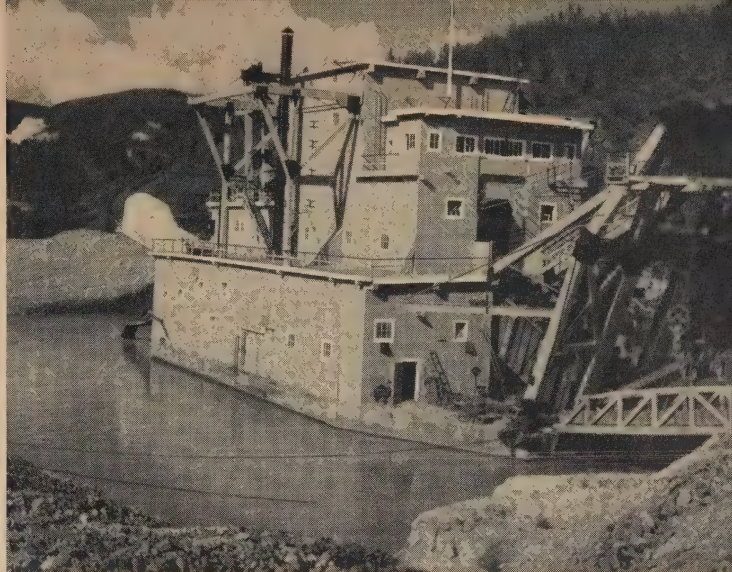
**Furs.**—For a century and a half, the fur trade was the entire basis of the northern economy. Although its value has now declined relative to mining, its absolute value has remained constant. It still sustains almost the whole native population and probably will continue to do so far into the future. The chief types of pelt taken are white fox, muskrat, beaver, red fox, mink and marten. The number of pelts taken and consequently the value of the industry fluctuates with the cycles of abundance of wildlife. Over the years, however, the annual value of production of furs in the North has averaged close to \$2,500,000. In recent years the Federal Government has followed a policy of regulating trapping to protect the welfare of the native population and to ensure the economical harvesting of the fur crop on a sustained-yield basis. Among the measures that have been instituted are restrictions on the number of white trappers, the setting aside of preserves on which only natives are allowed to trap, open and close seasons for the trapping of most animals, the fixing of a maximum bag for certain fur-bearers, and the creating of preserves and sanctuaries on which no one is permitted to hunt or trap. This policy is based on information obtained from sources such as the Royal Canadian Mounted Police, the fur traders, and the trappers themselves; it is, in effect, recognition of the continuing importance of the fur trade to the economy of the North.

**Other Natural Resources that will Provide the Bases for Potential Industries.**—It is a common conception that the future of the North can be defined in terms of minerals and furs. While this, of course, is true, it gives rise to the question of whether there are other potential industries that would contribute to a more balanced economy. Is it feasible to develop the fisheries resources on a commercial scale? Is there timber for construction purposes? Is there sufficient water power to turn the wheels of industry? Can enough food be grown to support a substantial population? The present development and potentiality of industries, subsidiary to mining and furs, is outlined in the following paragraphs.

**Fisheries.**—Great Slave Lake in the Northwest Territories, the fifth largest lake on the continent and only 340 miles south of the Arctic Circle, has, in the past five years, become the centre of a million-dollar commercial-fishing business. Pushing out in their boats in the misty dawns of the summer and fishing through the ice in the winter, the fishermen, including natives, caught approximately 8,000,000 lb. of trout, whitefish and inconnu in 1949. Here again in this industry the modern touch is evident. To expedite the operations of the 1,000 persons employed, use is made of aircraft, snowmobile and tractor.

**Reindeer Herding.**—An industry sponsored by the Federal Government and introduced to make capital of the conditions peculiar to the North is reindeer herding. This industry was established in an attempt to provide

One of the giant dredges used for placer-mining operations in the Klondike Valley. It is capable of dredging soil 63 ft. below the surface of the water.



the Eskimos with a livelihood which would augment and conserve the game resources on which they depended. The first herd of approximately 2,400 reindeer was delivered overland from Alaska in 1935 to a previously prepared station near the mouth of the Mackenzie River. White men and native Laplanders formed the nucleus of the herding staff and an important aspect of their job was to train young Eskimos in the technique of herding so that they would be able to manage reindeer herds on their own account and thus lay the foundations of a stable means of livelihood. In 1948 a native-managed herd was formed and a second was established in 1950.

The 1950 annual roundups of the main Government herd and the two native-managed herds showed a total of 7,500 reindeer, of which about two-thirds were in the main herd.

*Timber.*—The timber resources of the Canadian North are inadequate to meet the increasing local needs, particularly of the mining industry, and it can be expected that importations from the provinces will increase. In the Northwest Territories the limited commercial stands of timber in the Mackenzie District are being utilized to provide building materials and mining and fuel-wood requirements. A number of small mills are operated on the Slave and Mackenzie Rivers cutting white spruce almost exclusively. Poplar and jack pine are used chiefly for fuel.

In Yukon, because of the generally higher altitude, timber is more scarce and is found in commercial size only in the major valleys and depressions. In the years following the gold rush of 1898, the entire city of Dawson was built of lumber that grew in the vicinity, and by 1930 the supply close to the Yukon River was exhausted. Since then, timber requirements for the Dawson and Whitehorse areas have been imported from British Columbia although two mills are still operated at Mayo and a small one at Dawson. There are important stands in the districts situated south of the sixty-first parallel and east of the Lewes and Yukon Rivers as far north as the sixty-fifth

parallel where it is possible that the rate of growth can satisfy local needs and even provide an exportable surplus to less-favoured areas. White spruce is the most common species and makes up the bulk of all important stands.

*Agriculture.*—Although the percentage of arable land in the North is low, surprisingly good results have been obtained with various crops, both at experimental and practical levels. In the Northwest Territories, such development has been confined to the valleys of the Mackenzie River system, where small-scale farming operations and gardening have been carried on since the early days of settlement. Soil and horticultural surveys were made in the Mackenzie District by the Government in 1944 and 1945, and an experimental substation was established at Fort Simpson. Nowadays many of the homes have their garden patches and the officer in charge of the Fort Simpson Substation visits the various settlements from Norman Wells south to advise and assist home gardeners and the few who depend upon agriculture for a livelihood. The largest commercial undertaking in the Northwest Territories is carried on at Trout River, a few miles south of Fort Simpson on the Mackenzie River. This farm supplies much of the produce required at Norman Wells and other Mackenzie River points. Yellowknife has a number of market gardens (the largest being 10 acres in extent) which supply a portion of the requirements of the settlement during the summer season. The chief vegetables grown in the Mackenzie District are potatoes, carrots and cabbages.

In Yukon, farming activity has decreased considerably since the first years of this century, when thousands of acres were under cultivation to supply the influx of population brought about by the Klondike gold strike. At the present time farm income is derived largely from the local sale of butter, milk, beef, pork and vegetables. As in the Northwest Territories, almost every home in Yukon has its garden patch. In 1943, a broad soil reconnaissance survey was made of lands adjoining the Alaska Highway and in the Yukon River basin. In 1944, an experimental substation was established at Pine Creek, 106 miles west of Whitehorse and adjacent to the Alaska Highway. The substation staff conducts off-station co-operative field experiments at sites in the interior so that complete coverage of the territory will be secured. Experiments with poultry, cattle, hogs and spring grain have been very successful. Investigations indicate that about 160,000 acres in Yukon could be put under cultivation, 100,000 acres located in the Takhini-Dezadeash Valley traversed by the Alaska Highway, and 60,000 acres along the Yukon River flats.

The future of agriculture in Yukon is, of course, closely linked with the development of other resources, particularly minerals. The converse of this statement is also true—that the further development of mineral resources will be substantially aided by a versatile agricultural industry.

*Water Power.*—Another resource that is extremely important to the future mineral development of the Canadian North is that of water power. The lack of coal or oil (except at Norman Wells) in sufficient quantities and of easy access makes the development of large blocks of power exclusively dependent on water power. However, the water-power resources of the North are small in comparison with the southern part of Canada and, generally



speaking, the topographical conditions favourable to power development obtain only in limited areas. Further, the rate of precipitation is only about 12 inches per year, surface run-off ceases during the long winter and, except where natural or artificial lake storage is available, river flows fall to meagre amounts by late spring. Nevertheless, the power resources of the North are estimated at approximately 1,000,000 h.p. at ordinary six-month flow, and this will be sufficient to handle industrial expansion for the foreseeable future.

Present power developments in the North consist of a plant on the Klondike River about 26 miles above Dawson in Yukon, which supplies 15,000 h.p. for placer-mining operations and for the requirements of Dawson; the Bluefish Lake development in the Northwest Territories, which supplies 4,700 h.p. to mines in the area; and the recently completed Snare River development, which supplies 8,350 h.p. to the Giant Yellowknife gold mine and the townsite of Yellowknife. The first two power projects were built by mining companies and the latter by the Federal Government. Work is proceeding on a new plant at Mayo designed to facilitate the production of silver-lead ores in the Mayo and Keno areas. Ultimate cost of the project will be about \$3,000,000 and between 6,000 and 8,000 h.p. will become available when the plant attains maximum capacity.

### *Transportation*

The problem of transportation—of overcoming the obstacles of distance and climate—has always been one of the most stubborn blocks to opening up the North and probably will continue so for a long time to come. To the ordinary difficulties involved in setting up a system of transportation are

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*The settlement at Arctic Bay, N.W.T., with King George V Mountain in the background.*



added specifically northern obstacles such as perma-frost—that is, permanently frozen sub-soil that requires special techniques in road-building.

In the North there are three main modes of transportation—water, highway and air. Much of the heavy freight is still transported by water, increasing amounts of freight are being carried by truck over the roads, and passenger traffic is largely handled by aircraft.

The two great inland waterways of the Canadian Northwest are the Mackenzie and the Yukon, both of which rank among the ten greatest river systems in the world. The series of rivers and lakes of the Mackenzie system have a total length of 2,635 miles from the headwaters of the Finlay River in the Rocky Mountains to the Mackenzie Delta on the Arctic Coast and the area drained is approximately 700,000 square miles or about one-quarter of the mainland area of Canada. Freight on the Mackenzie waterway is carried by large barges pushed by small propeller-driven, diesel-engined vessels.

The Yukon River is 1,979 miles from the headwaters of the Nisutlin River in the Mackenzie Mountains. Of this length, 714 miles is in Canada and the rest in Alaska. It drains an area of 320,000 square miles, of which 127,000 are in Canada. There is steamer service on the Yukon River system; a coastal steamship service from Vancouver, B.C., to Skagway; and a supplementary railroad service on to Whitehorse.

The great drawback to the water-highway systems of the Canadian Northwest is that they are open to navigation only four to five months of the year. It is not yet clear how they will be affected by increasing year-round competition from aircraft and trucks. However, it is so economical to transport bulk freight by water that the role of the rivers in the transportation system of the North will likely continue to be one of importance.

It is only in recent years that roads have begun to probe into what has often been accurately described as the "trackless wilderness". The Alaska Highway, built as a war measure, traverses the southern part of Yukon. There are numerous access roads leading to airports along the Northwest Staging Route, secondary roads radiate from Whitehorse, Dawson and Mayo to the adjacent mining districts, and an all-weather gravelled highway connects Whitehorse and Mayo. In the Northwest Territories, the recently completed Mackenzie Highway links the railhead at Grimshaw, Alberta, to Hay River settlement on Great Slave Lake. This 385-mile all-weather highway facilitates the movement of freight to the Yellowknife mining district and to other settlements in the Mackenzie Valley.

It is obvious that these older forms of transport—road and water—will always be of prime importance to the North. In fact, the importance of the road system will doubtless increase as it expands in keeping with the needs of the country. Nevertheless, it is the swift wings of the aeroplane that have in recent years enabled so much to be achieved in so brief a space of time. So significant is the air age to the North that it has been stated that the whole history of the Canadian North can be divided into two periods—before and after the coming of the aeroplane.

The aeroplane, with its speed and range, has brought the outermost parts of the North to within a few hours of effortless flying time. Scheduled airlines operate from Edmonton and Vancouver into Yukon and beyond; to Yellowknife in the Northwest Territories; and to settlements in the Mackenzie





*The wood-burning, paddle-driven steamer "Whitehorse" makes the round trip between Whitehorse, Yukon, and Fairbanks, Alaska, in nine days.*

Valley as far north as Aklavik. In the Eastern Arctic, commercial air services operate chiefly on a charter basis. Landing facilities for the larger types of aircraft are not as yet available, but that is only because they are not necessary at the present stage of development of the North. As the demand for the minerals of the North becomes more urgent, so will facilities be expanded until there will be few parts of that everlasting frontier that are not relatively close to the amenities of civilization.

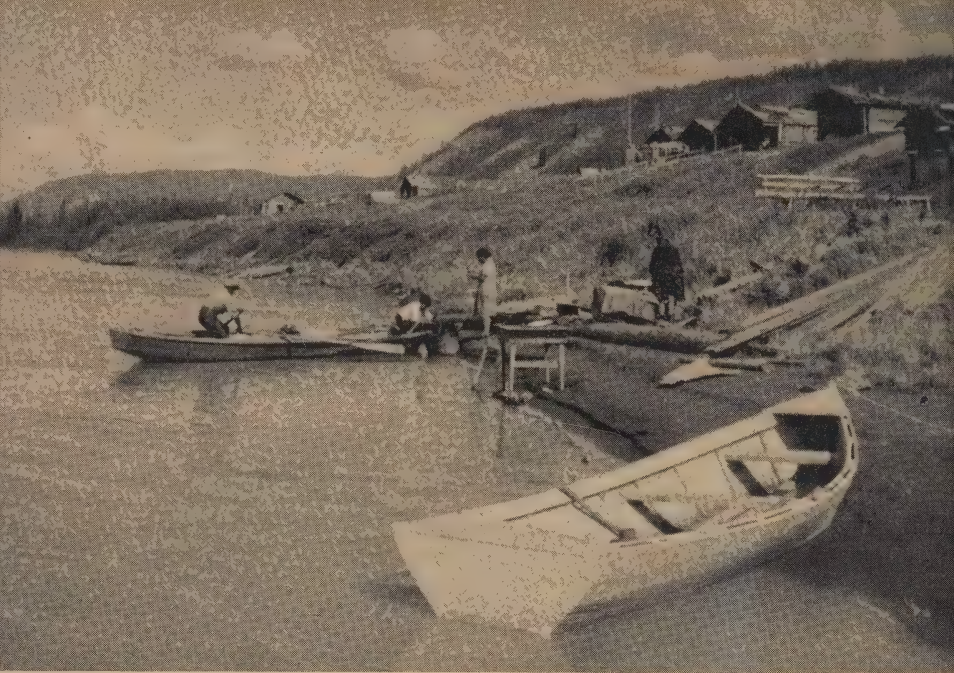
### *The People and Their Problems*

The physical resources<sup>2</sup> and accessibility of the North are the two primary factors in assessing its wealth. But what of the third important factor—the people? Without the people to bring them to life, water-power sites are merely turbulent stretches of river and potential mines are merely mineral formations.

Scattered throughout the million and a half square miles of the North there are little more than 12,000 white persons. They are concentrated mainly in the mining districts of Yukon and the Northwest Territories—at Dawson, Mayo and Whitehorse, and at Yellowknife and Port Radium. A small number inhabit the lonely outposts of the great beyond—the missionaries, the doctors, the fur traders and the scientists.

The native Indians and Eskimos also number a little more than 12,000. The Indians, in general, inhabit the forested areas of the north, while the Eskimos shun the wooded sections and live on the treeless Arctic Coast and Arctic Islands. Anthropologists believe that they are of Asiatic origin and came from Asia to America across Bering Strait, possibly as long ago as





*Moosehide, an Indian village three miles north of Dawson on the Yukon River.*

4,000 years. During most of this time their conditions of life remained unchanged as they followed their traditional hunting-fishing-trapping economy; that is, they lived at a level little removed from the stone age.

When the aggressive European invaded the North he followed his practice and brought his own civilization with him. As has happened in the past, the spread of civilization uncontrolled by government produced its usual adverse effects on the natives. Throughout the eighteenth and most of the nineteenth centuries this process went on. Gradually the old traditions of the natives gave way before the influence of the phonograph, motor schooner, and high-powered rifle. With the rifle the natives began very efficiently to exterminate the wildlife upon which their existence depended.

When, towards the close of the nineteenth century, the Canadian Government became responsible for the welfare of the natives, the problem was clearly a grave one. Basically, it involved reconciling the old life of the natives with the new life developing around them. This problem has changed only in degree down to the present. It is being solved step by step from day to day and it can safely be said that when the Federal Government began administering the affairs of the Northland, it was almost the first time in history that the advance of civilization was accompanied by a deliberated policy of benevolence to the native inhabitants.

The responsibility of the Federal Government for the welfare of the natives is only part of its manifold administrative activities. Federal responsibility also extends into such fields as transportation, communication, health and education and all of them pose their own difficult problems.

In the field of education, a system is being worked out that is unlike anything in previous Canadian history. The basic concept is to establish permanent schools in even the smaller communities and to appoint teachers with the special qualifications needed to develop the school as the centre of the community. The school is used for meetings, games and social events as well as for regular classroom work. Schools are provided with radios and moving-picture facilities, and circulating film libraries are carried on a regular schedule from school to school.

Special techniques must be used in dealing with nomadic groups of the North, particularly those in the Eastern Arctic. Some of these innovations are combinations of teaching and health centres (travelling schools and seasonal schools). Woven into this fabric of experiment are the older residential and mission day schools operated by the Church of England, the Roman Catholic Church, the Northern Canada Evangelical Mission, and the Calvary Baptist Mission at Yellowknife.

The story is similar in other fields of social welfare, such as medicine. At many points throughout the north small hospitals and health centres have been set up or subsidized by the Government to care particularly for the native population which is almost defenceless against even the commonest diseases of civilization. Family allowances (allowances paid in kind not cash) and old age pensions are paid to the inhabitants of the North.

The Eskimo people have always made for themselves certain articles for daily use, bowls, knives and the like and carved dolls and kayaks for the amusement of their children. When these were taken "outside" they became curiosities, sometimes objects of art. Eskimo skill in carving in ivory and soapstone had long been recognized but it remained for the Department of Resources and Development and the Canadian Handicrafts Guild to realize the market possibilities of these articles and through their efforts the ground-work has been laid for another subsidiary industry.

To assist the mining industry, government scientists, including geologists, geographers, geodesists, and topographers are gradually laying bare the form

An Eskimo woman having her eyes examined at a Government eye clinic.





and composition of the Northland. Annually, as many as 38 parties work through the country, producing detailed topographical maps and extending the geodetic net ever farther northward.

The Eastern Arctic outposts of civilization are supplied by a government-owned ship which travels more than 10,000 miles through the northern waters to carry food, equipment and replacement personnel to the various posts. The party normally includes administrative and medical officers, Royal Canadian Mounted Police personnel, technicians and scientists representing various government departments and other agencies. The ports of call include Fort Chimo, Coral Harbour, Cape Dorset, Lake Harbour, Frobisher Bay, Pangnirtung, River Clyde, Pond Inlet, Arctic Bay and Dundas Harbour. In 1950 the *C. D. Howe* made her maiden voyage on this mission, replacing the *Nascopie* which had been in service for many years.

The Joint United States-Canadian Weather Station Resupply Mission operates in the Eastern Arctic during the short summer season. This has been an annual undertaking since 1947. Three outposts are visited by boat—Resolute, Eureka and Alert. At Resolute, supplies are dropped and later carried by air to Mould Bay on Prince Patrick Island and Isachsen on Ellef Ringnes Island.

In all these projects, the policy of the Government in supplying services in keeping with the expansion of activity in the North is evident. Through the Development Services Branch of the Department of Resources and Development, administration of the Canadian North is carried out and the well-being of its people, white and native alike, protected.

## *The Administration of the North*

The Northwest Territories is governed by a Territorial Council composed of a Commissioner, a Deputy Commissioner, and five councillors appointed by the Governor in Council. The Commissioner in Council has power to make ordinances for the government of the Territories, under instruction from the Governor in Council or the Minister of Resources and Development. Such ordinances cover direct taxation to raise revenue, the establishment and tenure of territorial offices, the appointment and payment of officers, maintenance of prisons, municipal institutions, licences, solemnization of marriages, property and civil rights, administration of justice and, generally, all matters of a local or private nature. Council meetings are held regularly and the Council functions not only as a legislative body, but in an advisory capacity to the Minister of Resources and Development.

With the growth in centres of population in the Northwest Territories a form of local government, municipal in nature, was desirable. The Yellowknife Administrative District was established in 1939 with a Board of Trustees composed of three members appointed by the Commissioner of the Northwest Territories for a period of one year and five members elected annually by the residents of the district. The Board elects its own chairman from among its members and functions in a manner similar to that of a town council. The Hay River Administration District was formed in 1949. The Trustee Board consists of two members elected locally and three, including the chairman, appointed by the Commissioner. That portion of the Northwest Territories lying west of the 109th meridian of longitude is now included in a new electoral



ARCTIC OCEAN

# NORTHWEST TERRITORIES AND YUKON

SCALE APPROX. 300 MILES TO 1 INCH

## REFERENCE

AIR ROUTES...

GAME PRESERVE BOUNDARY...

GOLD

BASE METALS...

OIL

COAL

FISH...





district known as the Yukon-Mackenzie River Electoral District and is represented in the Parliament of Canada.

In Yukon, the government is composed of a Commissioner and an elective Legislative Council of three members having a three-year term of office. The Council, with the Commissioner, operates in a manner somewhat similar to a provincial government. The Council sits apart from the Commissioner and presents ordinances passed by it to the Commissioner for his assent. The Yukon Act provides that the Commissioner shall administer the government under instructions given him from time to time by the Governor in Council or the Minister of Resources and Development. The Commissioner in Council has the power to make ordinances dealing with the imposition of local taxes, sale of liquor, preservation of game, establishment of territorial offices, maintenance of prisons and municipal institutions, issuing of licences, incorporation of companies, solemnization of marriages, property and civil rights, administration of justice, and generally all matters of a local nature.

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Within this framework of administration, the story of the North continues to unfold. A century and a half ago, when the early northern explorers stood on the decks of their wooden ships as they veered through the ice-littered sea, it was impossible for them, looking ahead into that frozen land, to imagine what conditions would be like there in the twentieth century. To-day, in the middle of the twentieth century, it would indeed be unwise to predict the progress and development of the Canadian North in the next century and a half.

This, however, is certain, world demands for minerals will continue to spur on development and exploitation of northern resources. World supplies of many essential minerals are being depleted with the increased demands of modern civilization and the Canadian North holds out the promise of wealth and adventure.







The construction of the pipe line from the Alberta oilfields to the Head of the Lakes, started in the spring of 1950, was completed in record-breaking time. The first crude entered the system on Aug. 25 and on Oct. 4 the opening of a valve at Edmonton started the flow through to Regina. The Rt. Hon. C. D. Howe, Minister of Trade and Commerce, spoke at the opening ceremony.



# Moving Alberta's Black Gold to Market

THE first pipe line for carrying crude oil from Western Canada was completed during 1950 from Redwater, Alta., to the Head of the Great Lakes at Superior, a distance of 1,127 miles, at a cost of \$90,000,000. This outstanding construction and engineering accomplishment marks a mile-post in the economic development of Western Canada.

While the planning of the pipe line started more than two years ago, actual construction was completed in a record-breaking period of less than 150 days—the work schedule set for the project. This made it the fastest major pipe-line undertaking ever completed.

First construction units started in the spring of 1950. On Aug. 25, the first crude to enter the system was started from Redwater for the 30-mile pipe-line trip to storage tanks at Edmonton. On Oct. 4, Hon. E. C. Manning, Premier of Alberta, opened a valve at the Edmonton Pump Station to start the first crude eastward by pipe line through the 439-mile section to Regina. This opening ceremony was attended by Rt. Hon. C. D. Howe, Ottawa, Minister of Trade and Commerce, and other government and business officials.

At another ceremony on Oct. 23 at the Regina Pump Station, Hon. T. C. Douglas, Premier of Saskatchewan, opened a valve to start first crude oil deliveries from the pipe line to refineries in that city. Step by step the crude was moved through three main pipe sections until first deliveries were made into storage at Superior early in December.

The pipe-line project was promoted by Imperial Oil, Limited, the discoverers of the Leduc oil field, in February, 1947. Actual construction was carried out by contractors engaged by a specially organized company—Interprovincial Pipe Line Company—which owns and operates the system. Imperial Oil retained a minority interest in the new company, which also is owned by other oil companies, private interests and the general public.

The influence on the national economy of the pipe line will be immense. Rapid development programs that followed the Leduc discovery built Western Canada's proven oil reserves from 22,000,000 bbl. in 1946 to an estimated 1,000,000,000 bbl. at the beginning of 1950. Thus potential oil production in Alberta at the beginning of 1950 was about one-third of Canada's requirements, while three years earlier Canada produced less than one-tenth of requirements. Further, from the beginning of 1950 to June 30, 300 new Alberta oil wells were brought in.

During the past ten years, Canadian oil consumption has increased 130 p.c. Demand for gasoline has doubled and heating oil demand has increased three and one-half times. But, in spite of rapidly growing reserves, because gaps existed in refining capacity and because of difficulties of transportation, less than 20 p.c. of Canada's petroleum needs in 1949 were supplied by domestic crude. Even in 1950 the daily average production from the

western oil fields was held down to about 61,000 bbl.—sufficient to serve prairie refineries—although the wells in Alberta were capable of producing at more than double that rate without exceeding the allowables fixed by the Alberta Conservation Board. The completion of the pipe line has enabled the oil to reach out economically to new markets and, instead of each new successful well reducing the amount of crude that could be taken from existing wells, under a system of restricted allowances, production will now be limited only by the pipe line facilities and market demands.

## *The Planning and Construction of the Pipe Line*

As early as 1938 the advantages of a pipe-line outlet for western oil were apparent but it was not until the Leduc field became firmly established as one of the major oil finds on the continent that plans crystallized.

The pipe line, as originally projected, was intended to carry crude from the Edmonton area to refineries at Regina. Demands east of Regina were to be supplied by rail. With the rapid and favourable development of the Leduc, Redwater and other areas, the size of the pipe line was increased and its length extended to the Head of the Lakes.

The usual tedious and costly reconnaissance land survey was avoided by the adoption of aerial survey methods for the proposed route. Reconnaissance flights to examine the terrain between Regina and Nişku, Alta., a small railway point near the Leduc field, began in early 1948 and a photographic survey of the most favourable general route was made. By the end of 1949 completed plans of the route selected were presented to the Board of Transport Commissioners for approval.

In the meantime, engineers were working on the many problems that had to be solved before construction could commence. What maximum throughputs should be planned? How would varying temperatures affect viscosity of the crude? How much would pressure drop per mile in pipe of various diameters? And—on the less technical side but most important in that period of extremely short supply—from where would the required tonnage of steel for the pipe line come?

By the summer of 1948, about 100 wells had been completed in the Leduc field and the estimated recoverable reserves were placed at 200,000,000 bbl. This appeared sufficient to adequately support production to meet the requirements of the prairie refineries as far east as Regina.

Pressure-drop calculations were made for pipe of 16, 18, 20 and 22 inches diameter with ranging wall thicknesses. Pressure drops per mile versus throughputs up to a maximum of 110,000 bbl. a day were plotted. The number and sizes of pumping stations required for the various throughputs, up to a maximum of 110,000 bbl. a day, were calculated. As a result of these studies and discussions with pipe manufacturers the decision to use 16-inch pipe was reached. All of this was on the assumption that the pipe line would terminate at Regina.

Then followed a search for steel which soon assumed international proportions as negotiations went on in Canada, United States, Britain and Europe. Most steelmakers could promise steel deliveries no earlier than 1952. The solution that finally developed stands as a fine example of co-operation among steel manufacturers in different countries and the customers



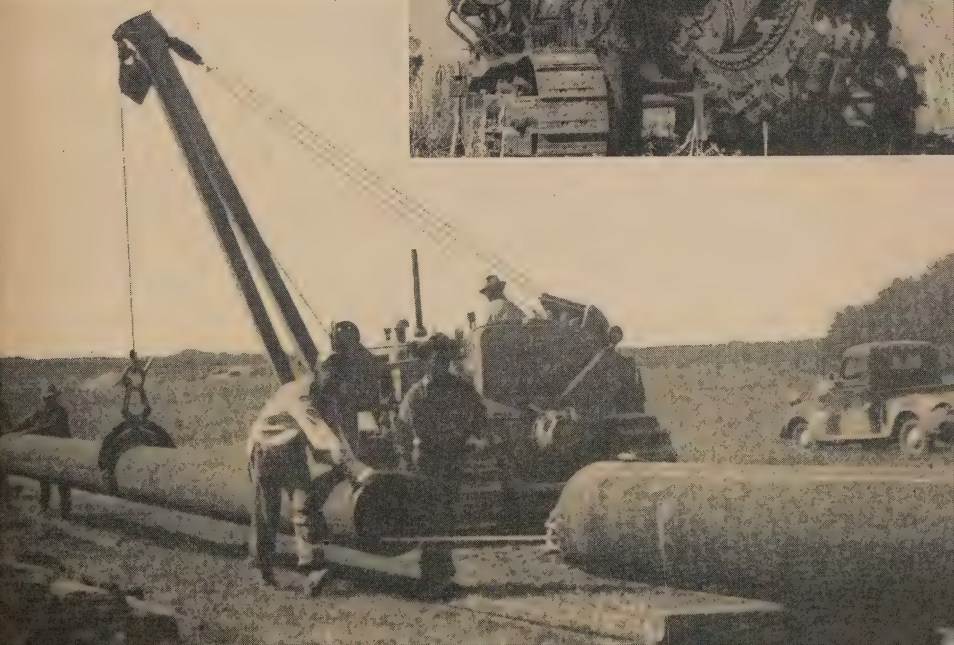
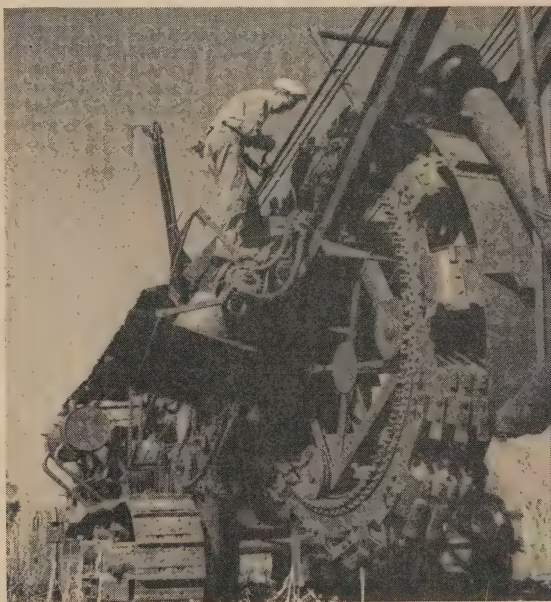
who depend on them for steel. British manufacturers agreed to ship 30,000 to 40,000 tons of plate to Canada. This was not suitable for pipe rolling but was satisfactory for other purposes and, in exchange, a Canadian steel plant agreed to release enough special pipe-line steel plate to meet requirements. Customers who would otherwise have used that special plate agreed to the slight inconvenience and were protected against any increased cost by the pipe-line company.

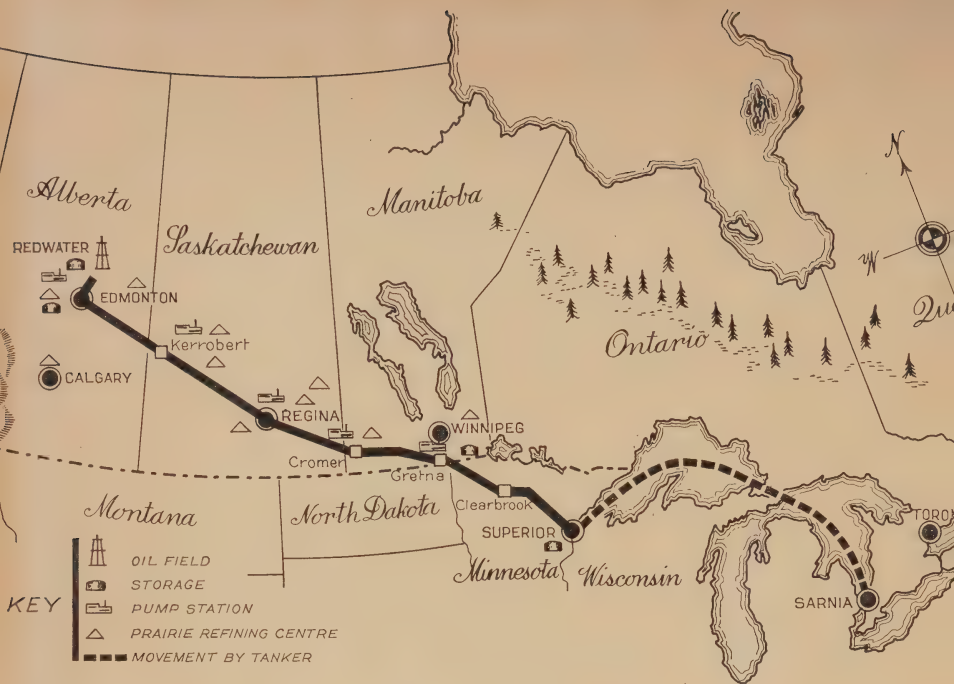
In order to fill the contract for pipe, a new rolling mill was constructed at Welland, Ont., for making pipe up to 16 inches in diameter: this alone represented an investment of \$5,000,000. The pipe was of high-test steel, being turned out in 40-foot joints with ends bevelled ready for the welders on the right of way. These joints were longitudinally welded and 'cold expanded' by internal hydraulic expansion which substantially increased the 'yield point'.

*Mechanical ditch-digger gouges a trench to receive the pipe line.*



*A side-boom caterpillar tractor moves another 40-ft. joint of steel pipe into place.*





When, by the autumn of 1948, development drilling at Redwater, about 30 miles northeast of Edmonton, indicated another major oil strike, the moving of crude into refineries supplying the more densely populated marketing areas of Eastern Canada was brought into the realm of sound practical economics. As reserves accumulated, it appeared obvious that the greater part of the Sarnia, Ont., refinery's requirements could be supplied by Alberta crude. But to supply Sarnia during the summer season when navigation was open on the Great Lakes, as well as the Regina and other prairie refineries, would require a capacity of approximately 90,000 bbl. a day between Edmonton and Regina. This necessitated a new set of studies which showed that the most economical route, both from the standpoint of construction costs and maintenance, was to the terminus of Superior, Wisconsin. To establish the terminus at a Canadian port on Lake Superior would have required \$10,000,000 additional investment and operating costs would have been increased by 10 cents a barrel.

It was also decided, in view of rapidly mounting production, to increase the size of the pipe from Edmonton to Regina to 20 inches. The 16-inch line would have a maximum throughput of 125,000 bbl. a day at 1,050 lb. operating pressure with eight pumping stations. By increasing the pipe to 20 inches, the throughput would be increased to 145,000 bbl. a day at the same 1,050 lb. pressure, but only four pumping stations would be required. The increase in cost of the 20-inch pipe over the 16-inch pipe would be more than offset by the saving in the operation of fewer stations, which was estimated at about \$1,000,000 annually.

As the contract had been awarded for the 16-inch pipe for the original Edmonton-to-Regina system, it was necessary to utilize this pipe somewhere



on the eastern extension. It proved practicable to do so on the section from Regina to Gretna, Man., because there would be a fairly sizeable take-off at Regina, decreasing the throughput and the required size of pipe line east of that city.

At this stage, then, the decision was reached to build the section from Edmonton to Regina of 20-inch diameter pipe with an intermediate pumping station at Kerrobert, Sask. From Regina to the International Boundary at Gretna, Man., the pipe would be of 16-inch diameter and an intermediate station at Cromer was included. The station at Gretna would pump through 18-inch diameter pipe to a station at Clearbrook, Minn., which would in turn relay the oil to Superior, also through 18-inch pipe.

The six stations along the route will keep the oil moving with an initial capacity of 90,000 bbl. a day from Edmonton to Regina and approximately 70,000 bbl. a day in the sections east of there. Volume can be increased by 50 p.c. through the addition of six more stations.

Planning the pumping stations presented many problems and involved conferences with various equipment manufacturers. In view of extreme weather conditions on the prairies, it was decided that the pump-station buildings, which are about 75 feet by 200 feet by 24 feet high, should be of steel frame with walls of masonry. Considerable attention was given to the heating system for the buildings.

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*Welders at work on 16-inch pipe.*





For each of the Edmonton and Kerrobert stations, four units have been installed consisting of four dual-fuel engines, each rated at 1,080 h.p. at 600 r.p.m., driving four centrifugal pumps capable of pumping 150,000 bbl. a day. This provides a standby unit at all times. At each of the Regina and Cromer stations, three units rated at 810 h.p. have been erected and provision made to install the fourth as a standby unit at a later date. The Gretna station has three 540 h.p. units, while at Clearbrook two 810 h.p. units are installed to handle the initial load. Much of the equipment for the pumping stations was produced by Canadian manufacturers, some of it for the first time.

Special attention was given to the pipe and its protection. It was determined that three feet of dirt covering on top of the pipe would provide reasonable winter operating temperatures of the oil of 25° to 30° F. This cover also would provide adequate protection to the line from damage due to farmers plowing their fields or hauling equipment back and forth across the pipe-line route. To prevent corrosion, the line was coated with coal-tar enamel, reinforced with a fibre glass material and with a coal-tar impregnated asbestos wrapper. The enamel, known as Bitumastic 70-B enamel, is produced in Canada.

Pipe with  $\frac{1}{2}$ -inch wall was selected for crossings of the North Saskatchewan River near Edmonton and the Battle River near Hardisty, Alta., and concrete weights were added to keep the pipe in the river bed and prevent movement or floating during flood periods.

During the summer of 1950, 1,500 construction workers were employed to complete the entire pipe-line system by the autumn of 1950. To build the full 1,127 miles of pipe line in the short construction season that prevails on the prairies, a work schedule of 150 days was set—the fastest major pipe-line construction job ever undertaken.

In order to meet the program, the pipe line was divided into three divisions for construction purposes: the 439-mile section from Edmonton to Regina, the 336-mile leg from Regina to Gretna, Man., and the 322-mile section from Gretna to Superior. A 30-mile section linked Redwater oil field with the pumping station at Edmonton.

The contractors, working in the three divisions, split their working units into three separate spreads of men and machinery. Thus, nine spreads were at work simultaneously, and they completed better than nine miles of pipe-line construction every 24 hours of favourable weather. Floods in southern Manitoba and unseasonable snows and a late spring delayed the work on certain eastern spreads, but all work was carried through to completion late in 1950.

Key personnel and experts with long experience in pipe-line construction and with the 'know how', and the specialized machinery which was not available in Canada, came from the United States; but 80 p.c. of the manpower engaged on the construction was Canadian and hired locally along the route wherever possible. It is estimated that 30 p.c. of total costs was spent in direct labour payrolls, which meant more money in communities all along the line and resultant benefits to the business activity of those areas. But that temporary benefit, while considerable, was but a flash in the pan compared to the lasting benefits that will result from this project.

*Tarring and wrapping the pipe before it is put into the trench.*



At the Edmonton station six tanks, of 140,000 bbl. capacity each, have been installed to give 840,000 bbl. storage capacity there. Also, since all of the oil scheduled to move out of the terminal at Superior is to move by lake tanker and can move only during the summer months when the Great Lakes are not ice bound, sufficient storage is needed at the terminal to permit operation of the pipe line during the winter months. Thus 12 tanks, each with a capacity of 150,000 bbl., have been erected at Superior. Loading facilities there have been designed to put oil on board the lake tankers at an estimated average rate of 57,000 bbl. a day.

As a direct result of the construction of the pipe line, western oil will benefit the Canadian exchange problem by an estimated 155,000,000 United States dollars in 1951. This means more money to buy other imports needed—things that cannot be grown or made in Canada. The immediate advantage to the western consumers of petroleum products is obvious. In 1949 such consumers paid \$30,000,000 less for all products purchased than would have been paid if additional crude had not been discovered in Alberta.

Refineries along the route of the pipe line will receive oil at transportation costs lower than was possible at any time in the past and deliveries to refineries in Eastern Canada will extend present markets for crude.

Oil has now definitely taken its place as one of Canada's major natural resources and the healthy development of the industry will contribute to the improvement of the standard of living for the entire country and particularly for Western Canada.







# Canada—The Country

## ★ *Physical Features*

CANADA comprises the whole northern part of the North American Continent with its islands, except the United States territory of Alaska. Extending from the Atlantic to the Pacific and from the United States Boundary to the North Pole, it has an area of 3,845,144 square miles, which may be compared with an area of 3,608,787 square miles for the United States and Alaska. The Canada-United States Boundary is 3,986·8 miles long and that between Canada and Alaska 1,539·8 miles.

The fresh-water area of the country is unusually large, constituting over 6 p.c. of the total: its character and disposition—for there are literally thousands of lakes, large and small, that provide storage basins for the regulation and control of stream flow—account for Canada's favourable place among nations in water-power resources. The Great Lakes, with the St. Lawrence River, form the most important system of waterways on the continent and one of the world's notable fresh-water transportation routes, providing ship transportation from the sea into the very heart of the continent. From the Strait of Belle Isle at the northern entrance to the Gulf of St. Lawrence, the sailing distance to the head of Lake Superior is 2,338 miles. The Great Lakes, through which the International Boundary passes, have a combined area of 95,170 square miles, and in addition to these there are twelve large lakes over 1,000 square miles in area and countless smaller lakes scattered all over that portion of Canada lying within the Canadian Shield: in an area of 6,094 square miles, accurately mapped, just south and east of Lake Winnipeg, there are 3,000 lakes.

The physical features of Canada fall naturally into six divisions. The Appalachian Region, including that part of the country lying south and east of the St. Lawrence River—the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, the Island of Newfoundland and part of Quebec—is for the most part mountainous or hilly. The Appalachian Mountains of the eastern United States, continuing up through southeastern Quebec, reach heights up to 4,160 feet. To the east the elevations are lower. It is a beautiful country of diversified character, heavily wooded in sections and with areas of good farm lands.

The valley of the St. Lawrence River and the peninsula of Ontario formed by the Great Lakes, a region about 35,000 square miles in extent, is rich in resources of forests, minerals, water powers and agriculture. Its moderate climate, fertile soil and excellent transportation facilities have combined to make this region an area of great economic importance. Within this area is the greatest concentration of population and industry in the country.

That vast area lying west and north of the St. Lawrence Lowlands, including the remainder of Quebec and Ontario and running westward to Lake Winnipeg and northward across Saskatchewan and the Northwest Territories to the shores of the Arctic Ocean, is known as the Canadian Shield. It is over 2,000,000 square miles in extent and is an area of low, hummocky hills and ridges separated by depressions occupied by lakes or

muskegs. Lakes of all sizes and shapes and containing numerous islands dot practically the entire area, and the rivers are often mere successions of lake expansions connected by stretches in which rapids and waterfalls are numerous. This area, Canada's great storehouse of mineral wealth, is rich in forest, fur and water-power resources.

To the west of the Canadian Shield lie the Interior Plains, part of the great plains regions in the interior of the continent stretching from the Gulf of Mexico to the Arctic Ocean. This is Canada's great wheat-producing area. To the west again and running parallel to the Pacific coast is the Cordilleran Mountain System, the predominant orographical feature of Canada. Throughout Canada this mountain system, which extends up from the south and continues on into Alaska, has a width of 400 miles and covers 530,000 square miles in area. Many of the summits reach 10,000 feet and occasional peaks 13,000 feet above sea-level. It is an area of unsurpassed grandeur, rich in mineral and forest resources. To the south are many broad fertile valleys well suited to the growing of fruit and the production of other agricultural products.

The sixth division includes the islands of the Arctic lying north of the Canadian Shield and a low-lying area on the west side of Hudson Bay.

Thus Canada, in its vast extent, contains a great diversity of physical features and almost limitless natural resources which as yet are, for the most part, in the early stages of development.

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*The Niagara River, dropping over the escarpment at Niagara, creates the famous Falls. An agreement was reached by Canada and the United States in 1950 for the joint development of more electric power from the Falls while safeguarding their scenic value.*







## ★ *The Climate*

The climate of Canada is dominated by the general movement of the atmosphere from west and northwest. During the winter season cold, dry air from the polar regions moves eastward and southward across the prairies and Eastern Canada to the Atlantic. Usually these cold airmasses are considerably modified by the time they reach the Great Lakes and Eastern Provinces. In winter, air moving northward from the Gulf of Mexico exerts considerable effect on the climate of southeastern Canada, while in summer air from the same source furnishes rainfall to the prairies. Airmasses from over the north Pacific Ocean enter British Columbia but lose much of their water-content while passing eastward over the mountains. As this air moves eastward, it produces mild to hot weather according to season.

Vancouver Island and the coast of the mainland of British Columbia enjoy the mildest winters to be found anywhere in Canada, while summers are long and moderately warm. Although only a small portion of the winter precipitation is in the form of snow, autumn and winter constitute the wet season in this area. In contrast to the western slopes of the Coast Range, the southern interior valleys of British Columbia receive only light precipitation. Both summer and winter temperatures in the interior are more extreme than those experienced along the coast.



## Long-Term Temperatures and Precipitation Data for 35 Representative Localities in Canada

| Locality               | Height Above Sea | Length of Record | TEMPERATURES (Fahrenheit) |       |      | Heating Factor | Killing Frost Average Dates |                  | PRECIPITATION (inches)           |                |                 |              |             |      | Number of Days Rain Precip. |      |      |      |
|------------------------|------------------|------------------|---------------------------|-------|------|----------------|-----------------------------|------------------|----------------------------------|----------------|-----------------|--------------|-------------|------|-----------------------------|------|------|------|
|                        |                  |                  | Annual                    | Jan.  | July |                | Highest on Record           | Lowest on Record | Annual Day-De-grees <sup>1</sup> | Last in Spring | First in Autumn | Annual Total | Annual Snow | Jan. |                             | Apr. | July | Oct. |
|                        |                  |                  |                           |       |      |                |                             |                  |                                  |                |                 |              |             |      |                             |      |      |      |
|                        |                  |                  |                           |       |      |                |                             |                  |                                  |                |                 |              |             |      |                             |      |      |      |
| Gander, Nfld.          | 482              | 11               | 39.3                      | 19.2  | 62.3 | 91             | -15                         | 9.477            | May 29                           | Oct. 2         | 38.24           | 121.0        | 2.81        | 2.32 | 3.65                        | 3.87 | 129  |      |
| St. John's, Nfld.      | 296              | 67               | 40.9                      | 23.5  | 59.6 | 93             | -21                         | 8.876            | June 2                           | Oct. 10        | 53.78           | 101.1        | 5.31        | 4.16 | 3.54                        | 5.27 | 208  |      |
| Charlottetown, P.E.I.  | 186              | 65               | 41.7                      | 17.8  | 65.6 | 98             | -27                         | 8.679            | May 13                           | Oct. 22        | 39.47           | 113.0        | 3.76        | 2.78 | 2.98                        | 4.07 | 119  |      |
| Annapolis Royal, N.S.  | 30               | 25               | 44.4                      | 23.4  | 64.4 | 89             | -13                         | 7.948            | May 20                           | Oct. 16        | 41.41           | 74.8         | 4.20        | 2.77 | 3.40                        | 4.19 | 115  |      |
| Halifax, N.S.          | 83               | 75               | 44.0                      | 24.6  | 64.7 | 90             | -21                         | 7.748            | May 11                           | Oct. 14        | 56.74           | 70.8         | 5.40        | 4.54 | 3.79                        | 5.42 | 130  |      |
| Sydney, N.S.           | 48               | 69               | 42.3                      | 22.1  | 63.6 | 98             | -25                         | 8.392            | May 29                           | Oct. 13        | 50.24           | 97.9         | 5.16        | 4.03 | 3.37                        | 4.70 | 127  |      |
| Chatham, N.B.          | 98               | 50               | 40.2                      | 12.2  | 66.6 | 102            | -43                         | 9.272            | May 29                           | Sept. 20       | 40.74           | 107.3        | 3.38        | 3.02 | 3.91                        | 3.97 | 107  |      |
| Fredericton, N.B.      | 164              | 67               | 40.7                      | 13.5  | 66.1 | 101            | -35                         | 9.105            | May 20                           | Sept. 24       | 42.80           | 95.5         | 3.87        | 2.94 | 3.53                        | 4.11 | 108  |      |
| Saint John, N.B.       | 119              | 56               | 41.4                      | 19.3  | 61.0 | 93             | -21                         | 8.587            | May 4                            | Oct. 16        | 42.26           | 71.1         | 4.28        | 3.22 | 3.03                        | 4.01 | 134  |      |
| Arvida, Que.           | 335              | 10               | 36.4                      | 3.6   | 65.0 | 95             | -42                         | 10.780           | May 19                           | Sept. 19       | 38.93           | 116.1        | 2.90        | 2.53 | 4.81                        | 3.53 | 112  |      |
| Fort McKenzie, Que.    | 250              | 9                | 22.4                      | -12.5 | 54.2 | 91             | -60                         | 15.695           | July 8                           | Sept. 26       | 22.04           | 82.4         | 1.24        | 1.02 | 3.67                        | 1.77 | 77   |      |
| Lennoxville, Que.      | 498              | 24               | 40.3                      | 12.8  | 66.2 | 99             | -48                         | 9.130            | May 28                           | Sept. 9        | 39.56           | 89.4         | 3.46        | 2.60 | 4.12                        | 3.63 | 104  |      |
| Montreal, Que.         | 187              | 55               | 42.8                      | 13.8  | 69.8 | 97             | -29                         | 8.644            | Apr. 28                          | Oct. 17        | 40.80           | 112.3        | 3.76        | 2.60 | 3.74                        | 3.43 | 112  |      |
| Kapuskasing, Ont.      | 752              | 19               | 32.4                      | -1.7  | 62.4 | 101            | -53                         | 11.913           | June 14                          | Sept. 1        | 27.59           | 91.0         | 2.00        | 1.82 | 3.43                        | 2.50 | 95   |      |
| Ottawa, Ont.           | 260              | 65               | 41.5                      | 11.9  | 69.6 | 102            | -35                         | 8.915            | May 7                            | Oct. 2         | 34.23           | 82.0         | 2.93        | 2.70 | 3.39                        | 2.43 | 98   |      |
| Port Arthur, Ont.      | 644              | 62               | 36.2                      | 6.7   | 63.0 | 104            | -40                         | 10.632           | May 26                           | Sept. 20       | 23.66           | 42.9         | 0.91        | 1.49 | 3.56                        | 2.98 | 139  |      |
| St. Catharines, Ont.   | 347              | 21               | 47.8                      | 26.0  | 71.1 | 104            | -12                         | 6.718            | May 7                            | Oct. 27        | 70.03           | 61.9         | 2.30        | 2.39 | 2.39                        | 2.18 | 99   |      |
| Toronto, Ont.          | 379              | 105              | 45.1                      | 22.6  | 68.9 | 105            | -26                         | 7.373            | May 2                            | Oct. 14        | 32.18           | 37.7         | 2.71        | 2.48 | 2.95                        | 2.43 | 109  |      |
| Churchill, Man.        | 43               | 30               | 17.8                      | -19.0 | 53.7 | 96             | -57                         | 17.052           | June 28                          | Aug. 26        | 15.96           | 56.9         | 0.48        | 0.89 | 2.19                        | 1.43 | 52   |      |
| The Pas, Man.          | 890              | 27               | 30.6                      | -8.7  | 64.6 | 100            | -54                         | 12.592           | May 30                           | Sept. 7        | 15.44           | 44.9         | 0.61        | 0.81 | 2.22                        | 1.16 | 59   |      |
| Winnipeg, Man.         | 790              | 66               | 32.0                      | -3.1  | 66.9 | 108            | -54                         | 11.146           | May 27                           | Sept. 14       | 21.19           | 53.6         | 0.92        | 1.37 | 3.08                        | 1.49 | 67   |      |
| Prince Albert, Sask.   | 1,414            | 54               | 32.9                      | -4.3  | 63.4 | 103            | -70                         | 11.620           | May 30                           | Sept. 10       | 16.11           | 51.5         | 0.74        | 0.93 | 2.18                        | 0.84 | 62   |      |
| Regina, Sask.          | 2,484            | 55               | 34.5                      | -0.7  | 64.8 | 111            | -56                         | 11.259           | June 6                           | Sept. 10       | 14.70           | 28.8         | 0.51        | 0.74 | 2.38                        | 0.86 | 59   |      |
| Beaverbridge, Alta.    | 2,484            | 31               | 35.3                      | 5.6   | 59.8 | 98             | -54                         | 11.250           | June 4                           | Sept. 4        | 17.19           | 70.1         | 1.27        | 0.78 | 2.21                        | 1.11 | 76   |      |
| Calgary, Alta.         | 3,510            | 55               | 38.4                      | 13.1  | 61.5 | 97             | -49                         | 9.494            | June 1                           | Sept. 6        | 16.65           | 50.0         | 0.51        | 0.99 | 2.51                        | 0.69 | 101  |      |
| Edmonton, Alta.        | 2,219            | 56               | 36.6                      | 5.9   | 61.6 | 99             | -57                         | 10.356           | May 30                           | Sept. 6        | 17.38           | 46.4         | 0.88        | 0.88 | 3.32                        | 0.75 | 73   |      |
| Medicine Hat, Alta.    | 2,365            | 55               | 41.9                      | 12.0  | 69.3 | 108            | -51                         | 8.890            | May 12                           | Sept. 19       | 12.81           | 61.9         | 0.63        | 0.77 | 1.68                        | 0.62 | 56   |      |
| Cranbrook, B.C.        | 3,014            | 35               | 40.7                      | 16.7  | 63.2 | 102            | -41                         | 8.985            | June 10                          | Aug. 28        | 14.41           | 56.7         | 1.80        | 0.68 | 1.14                        | 0.89 | 69   |      |
| Nelson, B.C.           | 2,235            | 39               | 45.2                      | 24.4  | 66.4 | 103            | -17                         | 7.445            | May 13                           | Sept. 30       | 27.77           | 89.3         | 3.47        | 1.57 | 1.62                        | 2.35 | 102  |      |
| Penticton, B.C.        | 1,121            | 32               | 47.8                      | 26.8  | 68.3 | 105            | -16                         | 6.548            | May 7                            | Oct. 3         | 10.85           | 24.0         | 0.98        | 0.68 | 0.79                        | 0.83 | 103  |      |
| Prince George, B.C.    | 2,218            | 27               | 38.5                      | 12.9  | 59.6 | 102            | -58                         | 9.772            | June 18                          | Aug. 22        | 19.98           | 62.7         | 1.81        | 0.84 | 1.03                        | 1.99 | 123  |      |
| Victoria, B.C.         | 228              | 54               | 49.5                      | 38.7  | 63.0 | 95             | -2                          | 5.468            | Mar. 18                          | Nov. 27        | 27.13           | 44.9         | 1.18        | 0.44 | 2.81                        | 1.41 | 144  |      |
| Dawson, Y.T.           | 1,062            | 41               | 22.8                      | -21.0 | 59.6 | 95             | -68                         | 15.530           | June 6                           | Aug. 19        | 12.61           | 56.2         | 0.87        | 0.51 | 1.53                        | 1.17 | 117  |      |
| Copporine, N.W.T.      | 13               | 13               | 11.3                      | -18.9 | 50.1 | 87             | -54                         | 19.710           | June 25                          | Aug. 22        | 10.72           | 57.0         | 0.57        | 0.84 | 1.31                        | 1.16 | 104  |      |
| Port Good Hope, N.W.T. | 214              | 31               | 17.0                      | -23.6 | 59.3 | 95             | -79                         | 17.520           | June 15                          | Aug. 6         | 10.63           | 50.0         | 0.53        | 0.49 | 1.55                        | 1.09 | 46   |      |

<sup>1</sup>Day-degrees represent the difference in temperature between the mean temperature of the air and the temperature of 65°F, multiplied by the number of days during which the outside temperature was lower than that figure. Fuel consumption for heating purposes will be proportional to these totals.

The severity of the winters varies greatly in the Prairie Provinces from year to year, depending upon the source-region and path of the dominant airmasses. In some winters outbreaks of cold air from the Arctic may pass quickly to the southeast and be replaced by much milder air from the west or southwest, while in other winters a cold spell may last for several weeks with only slight relief. The 'chinook' is one of the most striking features of the winter weather of the region. This spectacular phenomenon of sudden change from bitter cold to comparative warmth is most pronounced in southern Alberta. Daytime temperatures during the summer months are quite high, exceeding 100°F. on occasions during heat waves. However, the nights are generally quite cool throughout the summer. Only a limited portion of the southern prairies has an average frost-free period of 100 days or more. Although the rainfall over the prairies is relatively light, fortunately most of it occurs during the months May to August when it is required by the growing crops.

Winters are cold throughout northwestern Ontario and summers are moderately warm. However, even in summer, radiation from the rocky hills and ridges on clear nights presents a danger of frost. The length of the period continuously free from frost varies considerably with the topography but, in general, the region is not eminently suitable for agriculture. During winters with few mild spells, a considerable depth of snow accumulates.

The Lower Lakes region is traversed alternately by warm and cold airmasses. These alternations occur on the average about every three days with precipitation occurring at the margins of the moving airmasses. In southern Ontario precipitation is distributed fairly evenly throughout the year. Even in the winter rain falls in most months. Summers are warm but oppressively hot days with high relative humidity are infrequent.

Southwestern Quebec enjoys a climate quite similar to that of southern Ontario except that the moderating influence of the Great Lakes is absent. The winters are colder, the summers are slightly warmer, and the frost-free season is shorter. Farther down the St. Lawrence River both summer and winter temperatures are lower than in the upper St. Lawrence Valley. Northward from the St. Lawrence River winter temperatures become quite severe. During winter cold waves, minimum temperatures occasionally fall to —50°F. or lower in the Laurentian Hills and in far northern Quebec. Precipitation is ample throughout the whole region.

The climate of New Brunswick, Nova Scotia, and Prince Edward Island, is continental rather than maritime. Summers are warm with maximum temperatures rising to 90° or 95°F. at times. Snowfall is heaviest in northern New Brunswick. In Nova Scotia the heaviest precipitation occurs along the Atlantic Coast and is usually part rain even in winter. In Nova Scotia the maximum incidence of fogs is from June to August.

In the interior of Newfoundland the winters are cold, the temperature falling at times to —20° or —25°F.; along the coast winters are more moderate. Spring is late, summers are short and fogs are frequent.

The summers of Yukon and the Mackenzie District are characterized by considerably higher temperatures than those experienced in Baffin Island and in the eastern Arctic. Winter temperatures are bitterly cold throughout the entire region. At Snag in Yukon an extreme minimum temperature of —81°F. has been recorded. Both rainfall and snowfall are light throughout all northern Canada.

## ★ *National and Provincial Parks*

Federal and Provincial Governments have each set aside extensive areas of scenic beauty for the use of the people in perpetuity. These areas have been preserved in their natural state and the wildlife and other resources safeguarded. They have been made accessible by highways and provided with accommodation and other facilities for the visitor.

### *National Parks*

The National Parks are maintained in a manner designed to ensure that their benefits may be passed on to succeeding generations. The wilderness character and stimulating freshness of the great park areas are being retained, as far as possible, consistent with their functions as national playgrounds. Nearly 1,950,000 persons visited the Parks in 1950, approximately 24 p.c. of whom came from the United States and countries abroad. Thus these areas rank high among Canada's major tourist attractions. Here Canadians meet, not as visitors from one province to another, but as joint owners of a great national estate. Here also they mingle with fellow vacationists from other lands in an atmosphere that is friendly and tranquil.

The National Parks Service of the Department of Resources and Development administers the National Parks. The system comprises 26 separate units with a total area of more than 29,000 square miles. The National Parks Service is responsible for proper development and maintenance. By progressive stages the areas and their outstanding attractions have been made more easily accessible, facilities for recreation and accommodation have been expanded, wildlife is being scientifically managed, and broad measures taken for the effective protection of the flora, fauna and natural features. Modern conservation methods are applied in the parks by highly trained personnel, and constant vigilance is maintained in order to safeguard this priceless heritage for the use and enjoyment of present and future generations.

The National Parks Service is also entrusted with the restoration and marking of places of national historic importance and the commemoration of services rendered by distinguished Canadians. In addition to nine National Historic Parks which form part of the National Parks system, about 390 National Historic Sites in various parts of Canada have been marked or restored. The National Parks are listed below.

#### PRINCE EDWARD ISLAND—

Coastal strip 25 miles long on the shores of the Gulf of St. Lawrence. Recreational area; fine bathing beaches. Accessible by highway. Hotel and bungalow cabin accommodation within and adjacent to park. Equipped camp-grounds. Established 1937; area, 7 square miles.

#### NOVA SCOTIA—

**FORT ANNE.** National Historic Park with museum at site of early Acadian settlement, Annapolis Royal. Well-preserved earthworks. Established 1917; area, 31 acres.

**CAPE BRETON HIGHLANDS.** Rugged Atlantic coast line with mountain background. Fine seascapes. Recreational opportunities. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1936; area, 390 square miles.

**FORTRESS OF LOUISBOURG.** National Historic Park with museum near Louisburg. Ruins of walled city erected by the French 1720-40. Interesting excavations. Established 1941; area, 340 acres.



*The St. Lawrence River near Malorytown, Ont. Picnic spots, provided for the enjoyment of motorists along the highways, are widely used.*



**PORT ROYAL.** National Historic Park at Lower Granville. Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts, and Poutrincourt. Established 1941; area, 17 acres.

#### NEW BRUNSWICK—

**FORT BEAUSÉJOUR.** National Historic Park with Museum near Sackville. Site of early French fort. Established 1926; area, 81 acres.

**FUNDY.** Delightful recreational area on the Bay of Fundy. Forested region, wildlife sanctuary, rugged terrain. Equipped camp-grounds, heated salt-water swimming pool. Established 1948; area, 80 square miles.

#### QUEBEC—

**FORT CHAMBLY.** National Historic Park with museum at Chambly. First built by the French in 1665. Established 1941; area, 2.5 acres.

**FORT LENNOX.** National Historic Park on Ile-aux-Noix in Richelieu River, near St. Johns. Built by the French in 1759. Established 1941; area, 210 acres.

#### ONTARIO—

**ST. LAWRENCE ISLANDS.** Mainland area and 13 islands among the "Thousand Islands". Recreational and camping area. Accessible by highway; by boat from nearby mainland points. Established 1914; area, 189.4 acres.

**POINT PELEE.** Recreational area on Lake Erie. Remarkable beaches, southern flora. Resting place for migratory birds. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1918; area, 6 square miles.

**GEORGIAN BAY ISLANDS.** Recreational and camping areas. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Equipped camp-grounds and annual youth camps on Beausoleil Island. Established 1929; area, 5.4 square miles.

**FORT MALDEN.** National Historic Park with museums at Amherstburg. Site of defence post built 1797-99. Established 1941; area, 5 acres.

**FORT WELLINGTON.** National Historic Park with museum at Prescott. Defence post built 1812-13. Established 1941; area, 8.5 acres.

#### MANITOBA—

**RIDING MOUNTAIN.** Playground and wildlife sanctuary on summit of escarpment. Fine lakes, recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1929; area, 1,148 square miles.

**FORT PRINCE OF WALES.** National Historic Park at Churchill on the shores of Hudson Bay. Ruins of fort built 1733-71. Established 1941; area, 50 acres.

#### SASKATCHEWAN—

**PRINCE ALBERT.** Forested region dotted with lakes and interlaced with streams. Summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1927; area, 1,496 square miles.



*Elk Island National Park, about 20 miles east of Edmonton, Alta.*

#### ALBERTA—

**BANFF.** Magnificent scenic playground in the Rocky Mountains. Contains noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1885; area, 2,564 square miles.

**JASPER.** Mountain playground and wildlife sanctuary. Contains majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1907; area, 4,200 square miles.

**WATERTON LAKES.** Canadian section, Waterton-Glacier International Peace Park. Mountain playground with colourful peaks and charming lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1895; area, 204 square miles.

**ELK ISLAND.** Fenced preserve near Edmonton containing a large herd of buffalo; also deer, elk and moose. Popular recreational area. Accessible by highway. Bungalow cabin accommodation and equipped camp-grounds. Established 1913; area, 75 square miles.

#### BRITISH COLUMBIA—

**YOHO.** On west slope of Rockies. Lofty peaks, magnificent waterfalls, colourful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1886; area, 507 square miles.

**KOOTENAY.** Encloses Vermilion-Sinclair section of the Banff-Windermere Highway in Rockies. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped camp-grounds. Established 1920; area, 543 square miles.

**GLACIER.** Superb alpine region in Selkirk Mountains. Towering peaks, glaciers and forests. Accessible by rail only. Climbing, skiing, camping. Established 1886; area, 521 square miles.

**MOUNT REVELSTOKE.** Rolling mountain-top plateau on west slope of Selkirk Mountains. Colourful alpine meadows. Championship ski runs and ski jump. Accessible by rail and highway. Summer accommodation in park; all-year accommodation in town of Revelstoke. Equipped camp-grounds. Established 1914; area, 100 square miles.



## NORTHWEST TERRITORIES AND ALBERTA—

WOOD BUFFALO. Immense region of forests and open plains between Athabaska and Slave Rivers. Home of largest remaining herd of bison on the continent. Other wildlife species abundant. Established 1922; area, 17,300 square miles.

## Provincial Parks

Six of the ten provinces of Canada have established Provincial Parks. While in many cases they are undeveloped areas set aside in their natural state, some of the larger parks, especially in British Columbia, Quebec and Ontario, are highly developed and well served with hotels and other tourist accommodation and have organized recreational facilities. The total areas of provincial park land in the different provinces are as follows: British Columbia, 14,071 square miles; Quebec, 9,834 square miles; Ontario, 6,177 square miles; Saskatchewan, 1,685 square miles; Newfoundland, 42 square miles; and Alberta 13 square miles. The most important in point of size (all over 1,000 square miles in area) are:—

Tweedsmuir, B.C.

Wells Grey, B.C.

Hamber, B.C.

Lac La Ronge, Sask.

Algonquin, Ont.

Quetico, Ont.

Laurentides, Que.

Parc de Lavérendrye, Que.

Chibougamau Fish and Game Reserve,  
Que.

Trembling Mountain, Que.

Detailed information regarding Provincial Parks may be obtained from the respective Provincial Governments.

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*Enjoying the sun and water in Quetico Park, the Canadian part of a 16,000 sq. mile wilderness area on both sides of the International Border just west of Lake Superior.*







# The People

## ★ Population

IN 1604, 79 whites and an unknown number of aborigines inhabited the area now known as Canada. The manner of growth to a total population of 13,845,000 in 1950 appears to have been decidedly cyclical, the peaks of growth coinciding with important points in history—the American Revolution, the Irish famine, the building of the railways, and the opening of the West. The two periods of maximum absolute increases in modern times were in the periods 1841 to 1861 and 1901 to 1911.

When the first census was taken in 1666, 62 years after the first settlers had been left at Ile Ste. Croix, there were 3,215 inhabitants, exclusive of aborigines. At the end of the seventeenth century the white population was approximately 17,000 and the actual increase was fairly constant for the next 70 years. In the decade of the American Revolution the number increased from 105,000 in 1771 to 150,000 in 1781. The coming of the United Empire Loyalists and their settlement in the Eastern Townships and along the upper St. Lawrence, Lake Ontario and the Niagara Peninsula in the last quarter of the eighteenth century, opened up new areas and Canada began the nineteenth century with a white population of 362,000. The million mark was passed in 1831 and the period of the Irish famine brought the total to 2,300,000. When the first Dominion census was taken in 1871 Canada had a total population of 3,689,257. Since that date there has been a continuous measure of population growth by the decennial censuses and, beginning with 1906, the quinquennial censuses of the Prairie Provinces.

But it was within the first decade of the present century that the most spectacular expansion of the population of Canada took place. The outstanding feature was, of course, the opening of the West to settlement. The unorganized southern stretch of the Northwest Territories, ceded to Canada by the Hudson's Bay Company soon after Confederation, had been traversed by the Canadian Pacific Railway between 1875 and 1885. But, though the western population had roughly doubled in each of the decades ended 1881, 1891 and 1901, it was only with the discovery of the wheat-growing potentialities of the prairies and the launching of a large-scale immigration movement after 1900 that western settlement became a factor of first importance. In the period 1901-11 immigration exceeded 1,800,000 and, though at least a third of these were lost to Canada, it formed the chief factor in the gain of 34 p.c. which the total population registered in that period and which was larger than the relative growth of any other modern country during the same period. The movement was continued in the first three years of the second decade after which a recession set in.

After the First World War immigration never again reached anything like its former levels and during the depression years of the 1930's it was still further restricted by government regulations as well as by economic necessity. The population increase in the period 1921-31 amounted to 18.1 p.c. and in the decade 1931-41 to 10.9 p.c. Between 1931 and 1941 and even to some



extent in the previous ten years, the trend of movement was from the Prairie Provinces to Ontario and to British Columbia, the percentage increase for British Columbia in these two decades being higher than for any other province.

Annual estimates since 1941 show the population increase for Canada to be roughly 100,000 to 300,000 a year. The largest have occurred in the more recent years since the end of the Second World War due to higher birth rates and the resumption of immigration. The entry of Newfoundland into Confederation as Canada's tenth province in 1949 was responsible for the addition of almost 350,000 persons to the population of Canada.

The drift to the cities and towns in Canada has been strikingly apparent since shortly after the middle of the nineteenth century, a trend characteristic of virtually all western nations. The movement has been brought about largely by the expansion of manufacturing and service industries and by improved transportation and communication facilities. In 1871, 19.6 p.c. of the population dwelt in urban centres, in 1901 the proportion had risen to 37.5 p.c. and to 49.5 p.c. in 1921. In 1941 it was 54.3 p.c. The attraction of industry for labour during and after the Second World War has accentuated the trend in more recent years.

The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although recently

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*The business section of Ottawa, capital of Canada. The Parliament Buildings overlook the Ottawa River, across which lies the city of Hull, Que.*





this condition has been greatly modified, especially after the rigid control of immigration following the First World War. From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c., the excess of males being more marked in the newer sections of the country. The 1941 Census showed more females in urban centres than males; of every 1,000 urban dwellers 508 were females.

In recent years a more pronounced general ageing of the population has become evident owing to the coincident cessation of immigration and a lower birth rate. In 1921 about 18.3 p.c. of the total population was from 40 to 59 years of age; the proportion grew to 20.1 p.c. in 1931 and to 21.0 p.c. in 1941. Persons 60 years or over represented 7.5 p.c. of the total population in 1921, 8.4 p.c. in 1931 and 10.2 p.c. in 1941.

The Canadian population is made up of diverse origins moulding themselves into a nation that takes its pattern from the land of their adoption. At the time of Confederation the largest of the individual British Isles stocks was Irish, the Irish and Scottish together outnumbering the English by almost two to one. After 1881 the English predominated, with Scottish in second place after 1911. At the time of the 1941 Census the numerical strength of the principal origins was in the following order: French, English, Scottish, Irish, German, Ukrainian, Scandinavian, Netherland, Jewish and Polish.

In Canada, English and French are the official languages. The 1941 Census revealed 1,474,009 people speaking both, while 7,735,486 spoke English only and 2,181,746 spoke French only.

### Population Statistics

The following tables analyse population figures of the 1941 Census from various angles. In the space available in this publication, the subject of population can be dealt with only very summarily. The 1941 Census does not reflect current conditions in post-war Canada and the official estimates of the population for 1942-1950 are given at p. 59.

#### Population of Canada, Census Years 1891-1941 with Density, 1941

NOTE.—The figures for certain censuses are not altogether comparable but the qualifications are for the most part technical and are given in detail in the Census reports.

| Province or Territory | Population       |                  |                  |                  |                   |                   | Land Area in Sq. Miles | Persons per Sq. Mile 1941 |
|-----------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------------|---------------------------|
|                       | 1891             | 1901             | 1911             | 1921             | 1931              | 1941              |                        |                           |
| P.E.I. . . .          | 109,078          | 103,259          | 93,728           | 88,615           | 88,038            | 95,047            | 2,184                  | 43.52                     |
| N.S. . . . .          | 450,396          | 459,574          | 492,338          | 523,837          | 512,846           | 577,962           | 20,743                 | 27.86                     |
| N.B. . . . .          | 321,263          | 331,120          | 351,889          | 387,876          | 408,219           | 457,401           | 27,473                 | 16.65                     |
| Que. . . . .          | 1,488,535        | 1,648,898        | 2,005,776        | 2,360,510        | 2,874,662         | 3,331,882         | 523,860                | 6.36                      |
| Ont. . . . .          | 2,114,321        | 2,182,947        | 2,527,292        | 2,933,662        | 3,431,683         | 3,787,655         | 363,282                | 10.43                     |
| Man. . . . .          | 152,506          | 255,211          | 461,394          | 610,118          | 700,139           | 729,744           | 219,723                | 3.32                      |
| Sask. . . . .         | ...              | 91,279           | 492,432          | 757,510          | 921,785           | 895,992           | 237,975                | 3.77                      |
| Alta. . . . .         | ...              | 73,022           | 374,295          | 588,454          | 731,605           | 796,169           | 248,800                | 3.20                      |
| B.C. . . . .          | 98,173           | 178,657          | 392,480          | 524,582          | 694,263           | 817,861           | 359,279                | 2.28                      |
| Yukon. . . .          | ...              | 27,219           | 8,512            | 4,157            | 4,230             | 4,914             | 205,346                | 0.02                      |
| N.W.T. . . .          | 98,967           | 20,129           | 6,507            | 8,143            | 9,316             | 12,028            | 1,253,438              | 0.01                      |
| <b>Canada</b>         | <b>4,833,239</b> | <b>5,371,315</b> | <b>7,206,643</b> | <b>8,787,949</b> | <b>10,376,786</b> | <b>11,506,655</b> | <b>3,462,103</b>       | <b>3.32</b>               |

<sup>1</sup> Includes 485 members of the Royal Canadian Navy, who were recorded separately.

# Rural Farm, Rural Non-Farm and Urban Population, by Provinces, 1931 and 1941

| Province or Territory | 1931             |                  |                  | 1941             |                  |                  |
|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                       | Rural            |                  | Urban            | Rural            |                  | Urban            |
|                       | Farm             | Non-Farm         |                  | Farm             | Non-Farm         |                  |
| P.E.I.....            | 54,963           | 12,690           | 20,385           | 50,732           | 19,975           | 24,340           |
| N.S.....              | 173,965          | 107,227          | 231,654          | 141,182          | 169,240          | 267,540          |
| N.B.....              | 178,494          | 100,785          | 128,940          | 163,067          | 150,911          | 143,423          |
| Que.....              | 743,598          | 317,458          | 1,813,606        | 823,791          | 398,407          | 2,109,684        |
| Ont.....              | 785,550          | 550,141          | 2,095,992        | 694,684          | 754,338          | 2,338,633        |
| Man.....              | 254,302          | 129,868          | 315,969          | 248,684          | 159,187          | 321,873          |
| Sask.....             | 561,407          | 69,473           | 290,905          | 513,279          | 87,567           | 295,146          |
| Alta.....             | 370,899          | 82,198           | 278,508          | 380,693          | 108,890          | 306,586          |
| B.C.....              | 100,244          | 199,280          | 394,739          | 100,810          | 273,657          | 443,394          |
| Yukon.....            | 74               | 2,796            | 1,360            | 42               | 3,075            | 1,797            |
| N.W.T.....            | —                | 9,316            | —                | —                | 12,028           | —                |
| <b>Canada....</b>     | <b>3,223,496</b> | <b>1,581,232</b> | <b>5,572,058</b> | <b>3,116,964</b> | <b>2,137,275</b> | <b>6,252,416</b> |

## Urban Centres having over 30,000 Inhabitants, 1931 and 1941

NOTE.—Populations for 1931 are those residing in the incorporated areas as of 1941.

| Urban Centre and Province | 1931      | 1941      | Urban Centre and Province | 1931   | 1941   |
|---------------------------|-----------|-----------|---------------------------|--------|--------|
| Montreal, Que.....        | 818,577   | 903,007   | Halifax, N.S.....         | 59,275 | 70,488 |
| Greater Montreal..        | 1,023,158 | 1,139,921 | Greater Halifax....       | 74,161 | 91,829 |
| Toronto, Ont.....         | 631,207   | 667,457   | Verdun, Que.....          | 60,745 | 67,349 |
| Greater Toronto....       | 810,467   | 900,491   | Regina, Sask.....         | 53,209 | 58,245 |
| Vancouver, B.C.....       | 246,593   | 275,353   | Saint John, N.B....       | 47,514 | 51,741 |
| Greater Vancouver..       | 308,340   | 351,491   | Greater Saint John..      | 58,717 | 65,784 |
| Winnipeg, Man.....        | 218,785   | 221,960   | Victoria, B.C.....        | 39,082 | 44,068 |
| Greater Winnipeg...       | 284,652   | 290,540   | Greater Victoria....      | —      | 75,218 |
| Hamilton, Ont.....        | 155,547   | 166,337   | Saskatoon, Sask....       | 43,291 | 43,027 |
| Greater Hamilton..        | 163,710   | 176,110   | Three Rivers, Que...      | 35,450 | 42,007 |
| Ottawa, Ont.....          | 126,872   | 154,951   | Sherbrooke, Que....       | 28,933 | 35,965 |
| Greater Ottawa.....       | 175,988   | 215,022   | Kitchener, Ont.....       | 30,793 | 35,657 |
| Quebec, Que.....          | 130,594   | 150,757   | Hull, Que.....            | 29,433 | 32,947 |
| Greater Quebec....        | 172,517   | 200,814   | Sudbury, Ont.....         | 18,518 | 32,203 |
| Windor, Ont.....          | 98,179    | 105,311   | Brantford, Ont.....       | 30,107 | 31,948 |
| Greater Windsor....       | 110,385   | 121,112   | Outremont, Que....        | 28,641 | 30,751 |
| Edmonton, Alta....        | 79,197    | 93,817    | Fort William, Ont..       | 26,277 | 30,585 |
| Calgary, Alta.....        | 83,761    | 88,904    | St. Catharines, Ont.      | 24,753 | 30,275 |
| London, Ont.....          | 71,148    | 78,264    | Kingston, Ont.....        | 23,439 | 30,126 |
| Greater London....        | —         | 86,740    |                           |        |        |

## Leading Origins, by Provinces, 1941

| Province                  | British Isles    | French           | German         | Ukrainian      | Scandinavian               | Netherlands    | Jewish         | Polish         | Indian         |
|---------------------------|------------------|------------------|----------------|----------------|----------------------------|----------------|----------------|----------------|----------------|
| P.E.I.....                | 78,714           | 14,799           | 172            | 2              | 152                        | 494            | 25             | 1              | 258            |
| N.S.....                  | 445,178          | 66,260           | 15,038         | 711            | 2,353                      | 23,834         | 2,285          | 2,206          | 2,063          |
| N.B.....                  | 276,758          | 163,934          | 1,394          | 22             | 2,929                      | 4,539          | 1,228          | 233            | 1,939          |
| Que.....                  | 452,887          | 2,695,032        | 8,880          | 8,006          | 4,840                      | 2,645          | 66,277         | 10,036         | 11,863         |
| Ont.....                  | 2,729,830        | 373,990          | 167,102        | 48,158         | 27,225                     | 73,001         | 69,875         | 54,893         | 30,336         |
| Man.....                  | 360,560          | 52,996           | 41,479         | 89,762         | 32,620                     | 39,204         | 18,879         | 36,550         | 15,473         |
| Sask.....                 | 397,905          | 50,530           | 130,258        | 79,777         | 68,806                     | 35,894         | 4,149          | 27,902         | 13,384         |
| Alta.....                 | 399,432          | 42,979           | 77,721         | 71,868         | 63,494                     | 20,429         | 4,164          | 26,845         | 12,565         |
| B.C.....                  | 571,336          | 21,876           | 22,407         | 7,563          | 41,560                     | 12,737         | 3,350          | 8,744          | 24,875         |
| <b>Canada<sup>1</sup></b> | <b>5,715,904</b> | <b>3,483,038</b> | <b>464,682</b> | <b>305,929</b> | <b>244,603<sup>2</sup></b> | <b>212,863</b> | <b>170,241</b> | <b>167,485</b> | <b>118,316</b> |

<sup>1</sup>Includes Yukon and the Northwest Territories.  
Icelandic, 100,718 Norwegian and 85,396 Swedish.

<sup>2</sup> Includes 37,439 Danish, 21,050



The recent drift of population from country to city has been strikingly apparent. In 1941 27 p.c. of the people lived on farms compared with 31 p.c. in 1931 and this trend was accentuated during the war years.

### Population, by Sex and Age Groups, Census Years 1921-41

| Age Group           | 1921      |           | 1931      |           | 1941      |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                     | Males     | Females   | Males     | Females   | Males     | Females   |
| Under 10 years..... | 1,062,053 | 1,044,190 | 1,115,679 | 1,091,485 | 1,062,995 | 1,034,679 |
| 10-19 years.....    | 864,517   | 850,350   | 1,068,180 | 1,045,462 | 1,121,516 | 1,099,396 |
| 20-29 ".....        | 698,593   | 699,050   | 873,698   | 823,768   | 1,006,296 | 993,120   |
| 30-39 ".....        | 685,537   | 599,674   | 727,216   | 670,083   | 828,044   | 775,356   |
| 40-49 ".....        | 523,335   | 438,780   | 669,276   | 562,034   | 681,119   | 630,572   |
| 50-59 ".....        | 343,266   | 298,974   | 466,492   | 389,214   | 591,100   | 507,496   |
| 60-69 ".....        | 217,012   | 194,262   | 277,607   | 248,124   | 381,074   | 333,801   |
| 70 or over.....     | 123,742   | 123,352   | 173,682   | 171,015   | 228,392   | 231,699   |
| Not given.....      | 11,588    | 9,674     | 2,711     | 1,060     | —         | —         |
| All Ages.....       | 4,529,643 | 4,258,306 | 5,374,541 | 5,002,245 | 5,900,536 | 5,606,119 |

### Birthplaces of the Population, Census Years 1901-41

| Year    | Canadian Born |       | Other British Born <sup>1</sup> |       | Foreign Born |      |         |      | Total Population        |
|---------|---------------|-------|---------------------------------|-------|--------------|------|---------|------|-------------------------|
|         |               |       |                                 |       | U.S. Born    |      | Other   |      |                         |
|         | No.           | p.c.  | No.                             | p.c.  | No.          | p.c. | No.     | p.c. | No.                     |
| 1901... | 4,671,815     | 86·98 | 421,051                         | 7·84  | 127,899      | 2·38 | 150,550 | 2·80 | 5,371,315               |
| 1911... | 5,619,682     | 77·98 | 834,229                         | 11·58 | 303,680      | 4·21 | 449,052 | 6·23 | 7,206,643               |
| 1921... | 6,832,224     | 77·75 | 1,065,448                       | 12·12 | 374,022      | 4·26 | 516,255 | 5·87 | 8,787,949               |
| 1931... | 8,069,261     | 77·76 | 1,184,830                       | 11·42 | 344,574      | 3·32 | 778,121 | 7·50 | 10,376,786              |
| 1941... | 9,487,808     | 82·46 | 1,003,769                       | 8·72  | 312,473      | 2·72 | 701,660 | 6·10 | 11,506,655 <sup>2</sup> |

<sup>1</sup> Includes a few hundreds of persons born at sea.  
not stated.

<sup>2</sup> Includes persons with birthplace



## Marital Status of the Population, by Provinces and Sex, 1941

| Province or Territory          | Single           | Married          | Widowed        | Divorced     | Per-<br>manently<br>Separated | Total <sup>1</sup> |
|--------------------------------|------------------|------------------|----------------|--------------|-------------------------------|--------------------|
| <b>MALES</b>                   |                  |                  |                |              |                               |                    |
| Prince Edward Island.....      | 29,828           | 17,625           | 1,549          | 22           | 202                           | 49,228             |
| Nova Scotia.....               | 173,506          | 111,132          | 9,359          | 247          | 1,770                         | 296,044            |
| New Brunswick.....             | 140,952          | 85,093           | 6,695          | 197          | 1,137                         | 234,097            |
| Quebec.....                    | 1,027,162        | 591,533          | 46,386         | 500          | 7,270                         | 1,672,982          |
| Ontario.....                   | 993,265          | 851,096          | 60,210         | 2,291        | 14,105                        | 1,921,201          |
| Manitoba.....                  | 209,939          | 155,157          | 10,268         | 473          | 2,218                         | 378,079            |
| Saskatchewan.....              | 283,297          | 179,996          | 11,383         | 468          | 2,351                         | 477,563            |
| Alberta.....                   | 243,666          | 168,469          | 10,594         | 801          | 2,891                         | 426,458            |
| British Columbia.....          | 215,205          | 200,027          | 13,979         | 1,547        | 4,213                         | 435,031            |
| <b>Canada<sup>2</sup>.....</b> | <b>3,322,827</b> | <b>2,363,528</b> | <b>170,743</b> | <b>6,569</b> | <b>36,201</b>                 | <b>5,900,536</b>   |
| <b>FEMALES</b>                 |                  |                  |                |              |                               |                    |
| Prince Edward Island.....      | 24,748           | 17,473           | 3,401          | 19           | 178                           | 45,819             |
| Nova Scotia.....               | 148,474          | 109,513          | 21,544         | 268          | 2,115                         | 281,918            |
| New Brunswick.....             | 123,540          | 84,275           | 14,040         | 192          | 1,256                         | 223,304            |
| Quebec.....                    | 981,890          | 581,569          | 85,425         | 646          | 9,353                         | 1,658,900          |
| Ontario.....                   | 876,215          | 826,525          | 142,731        | 2,865        | 18,039                        | 1,866,454          |
| Manitoba.....                  | 176,458          | 151,105          | 20,625         | 654          | 2,818                         | 351,665            |
| Saskatchewan.....              | 221,557          | 175,112          | 18,965         | 381          | 2,414                         | 418,429            |
| Alberta.....                   | 186,215          | 161,953          | 17,963         | 717          | 2,850                         | 369,711            |
| British Columbia.....          | 165,064          | 181,932          | 29,235         | 1,718        | 4,878                         | 382,830            |
| <b>Canada<sup>2</sup>.....</b> | <b>2,907,741</b> | <b>2,292,478</b> | <b>354,378</b> | <b>7,463</b> | <b>43,936</b>                 | <b>5,606,119</b>   |

<sup>1</sup> Includes persons with marital status not stated.  
Northwest Territories.

<sup>2</sup> Includes Yukon and the

## Leading Religious Denominations, by Provinces, 1941

| Province or Territory          | Roman Catholic <sup>1</sup> | United Church of Canada | Anglican         | Presbyterian   | Baptist        | Lutheran       | Jewish         | Greek Orthodox |
|--------------------------------|-----------------------------|-------------------------|------------------|----------------|----------------|----------------|----------------|----------------|
| P.E.I.....                     | 42,743                      | 24,005                  | 5,739            | 14,724         | 5,443          | 45             | 18             | 10             |
| N.S.....                       | 188,944                     | 124,301                 | 103,393          | 47,415         | 89,272         | 9,104          | 2,167          | 347            |
| N.B.....                       | 220,454                     | 63,268                  | 55,155           | 15,382         | 88,766         | 870            | 1,196          | 85             |
| Que.....                       | 2,894,621                   | 100,196                 | 162,056          | 56,086         | 12,303         | 7,081          | 65,683         | 12,040         |
| Ont.....                       | 882,369                     | 1,073,425               | 815,413          | 433,708        | 192,915        | 104,111        | 69,217         | 28,383         |
| Man.....                       | 203,259                     | 194,001                 | 125,076          | 43,073         | 13,267         | 48,213         | 18,715         | 20,777         |
| Sask.....                      | 243,734                     | 230,495                 | 117,674          | 54,856         | 19,460         | 104,717        | 4,076          | 37,699         |
| Alta.....                      | 191,343                     | 193,664                 | 113,279          | 68,910         | 32,268         | 84,630         | 4,052          | 34,991         |
| B.C.....                       | 113,282                     | 200,817                 | 245,531          | 94,300         | 29,780         | 41,772         | 3,235          | 5,198          |
| <b>Canada<sup>2</sup>.....</b> | <b>4,986,552</b>            | <b>2,204,875</b>        | <b>1,751,188</b> | <b>829,147</b> | <b>483,592</b> | <b>401,153</b> | <b>168,367</b> | <b>139,629</b> |

<sup>1</sup> Includes Greek Catholic.

<sup>2</sup> Includes Yukon and the Northwest Territories.

**Annual Estimates of Population.**—The population of Canada as recorded at ten-year intervals by the Census is supplemented by estimates for intervening years. These are essential for the calculation of per capita figures of production and trade, and particularly for use as a base in birth and death comparisons. At every census the previous post-censal data are adjusted to the newly recorded population figures.

## Estimates of the Population, by Provinces, 1942-50

| Year        | P.E.I. | N.S. | N.B. | Que.  | Ont.  | Man. | Sask. | Alta. | B.C.  | Yukon<br>and<br>N.W.<br>T. | Canada              |
|-------------|--------|------|------|-------|-------|------|-------|-------|-------|----------------------------|---------------------|
|             | '000   | '000 | '000 | '000  | '000  | '000 | '000  | '000  | '000  | '000                       | '000                |
| 1942. . . . | 90     | 591  | 464  | 3,390 | 3,884 | 724  | 848   | 776   | 870   | 17                         | 11,654              |
| 1943. . . . | 91     | 607  | 463  | 3,457 | 3,917 | 726  | 842   | 792   | 900   | 17                         | 11,812              |
| 1944. . . . | 91     | 612  | 462  | 3,500 | 3,965 | 732  | 846   | 818   | 932   | 17                         | 11,975              |
| 1945. . . . | 92     | 621  | 468  | 3,561 | 4,004 | 736  | 845   | 826   | 949   | 17                         | 12,119              |
| 1946. . . . | 94     | 612  | 480  | 3,630 | 4,101 | 727  | 833   | 803   | 1,003 | 24                         | 12,307              |
| 1947. . . . | 94     | 621  | 491  | 3,712 | 4,189 | 743  | 842   | 822   | 1,044 | 24                         | 12,582              |
| 1948. . . . | 93     | 635  | 503  | 3,792 | 4,297 | 757  | 854   | 846   | 1,082 | 24                         | 12,883              |
| 1949. . . . | 94     | 645  | 516  | 3,887 | 4,411 | 778  | 861   | 871   | 1,114 | 24                         | 13,549 <sup>1</sup> |
| 1950. . . . | 96     | 658  | 522  | 3,976 | 4,512 | 795  | 874   | 895   | 1,138 | 24                         | 13,845 <sup>1</sup> |

<sup>1</sup> Includes the population of Newfoundland estimated at 348,000 in 1949 and 355,000 in 1950.

## Aboriginal Races

**Indians.**—The Indian population of Canada at present totals nearly 137,000. The vigour of this the oldest Canadian racial group and its ability to perpetuate itself is shown by the fact that its number has increased by

*Hurricanaw River Indian trappers in the Abitibi district of Quebec return to camp with their fur catch. Two beaver preserves in Ontario and five in Quebec are maintained exclusively for Indians.*



more than 18,000 since 1939. These figures are exclusive of Indians who have been enfranchised under the Indian Act. When an Indian is enfranchised he ceases to be an Indian under the law and acquires full rights and responsibilities of Canadian citizenship.

The administration of Indian affairs is the responsibility of the Indian Affairs Branch of the Department of Citizenship and Immigration, with the exception of medical and health services which are provided by the Department of National Health and Welfare.

Emphasis is placed on the general policy of assisting Indians to achieve economic independence instead of relying on direct relief. They are encouraged and assisted to interest themselves in agriculture, animal husbandry, poultry raising, subsistence gardening, commercial and domestic fishing, logging and lumbering.

Almost one-half of the Indians depend on the trapping of fur-bearing animals for their livelihood and progress has been made toward closer co-operation with all provinces to include the Indian trapper in benefits arising from the management of the fur resources. Formal agreements involving substantial contributions of federal funds have been negotiated with Manitoba, Saskatchewan and Ontario. In addition, arrangements for trap lines have been worked out with Alberta, British Columbia and Quebec. The Manitoba program has increased beaver production in that Province by over 7,000 pelts in five years. Largest of the Manitoba muskrat projects, the Summerberry near The Pas, has produced during the nine years of management, 1,346,000 pelts with a total auction value of \$3,208,000 of which about \$2,400,000 was returned to the participating trappers, including a large proportion of treaty Indians. Beaver production in Saskatchewan has shown an encouraging increase, while on the special 250,000-acre project near the Red Earth and Shoal Lake Indian Reserves, under lease to the Indian Affairs Branch, Indian trappers have received good returns for a number of years. In the five fur preserves in Quebec, 10,500 beaver pelts were harvested on a sustained-yield basis during 1949-50, with an approximate value to the Indian trappers of \$275,000.

A step to improve conditions on Reserves and to interest the Indians in community activities was made by the appointment of social workers to work full-time among the Indians. By the end of March, 1950, appointments had been made in British Columbia, Manitoba, northern Ontario and southern Ontario and workers will eventually be selected for duty in Alberta, Saskatchewan, New Brunswick, Nova Scotia and Prince Edward Island.

Under the housing program, which has been in progress for several years, \$1,033,607 was spent in 1949-50 for the repair of 2,271 homes and the construction of 1,197 new homes. At Mar. 31, 1950, 19,659 families with 56,924 children were registered for the Family Allowance and during the year \$3,377,095 was paid in this way to Indians either in cash or in kind.

Health services for Indians include the operation of 22 hospitals administered by the Federal Government together with a number of mission hospitals and nursing stations. A staff of physicians, nurses and field matrons and dispensers attend to the medical needs of the Indian population.

One of the most encouraging developments in Indian administration has been the steady increase in the number of children attending school. Total enrolment in Indian schools rose from 16,876 in 1943 to 23,409 in 1950



and, in addition, there were 1,645 Indian children attending provincial and private schools. This increased attendance is a reflection of the growing realization of the importance of education on the part of Indians themselves and of the added factors of better teachers, schools and equipment.

The credit balance of the Indian Trust Fund as at Mar. 31, 1950, was \$19,143,830, realized through the sale of Band property, timber, oil exploration rights, and the leasing of land. During 1949-50, total expenditure from the Fund was \$2,540,034, chiefly for agricultural assistance, relief, distribution of cash in accordance with the provision of land surrenders, housing construction and improvements, road building and loans to Indians.

**Eskimos.**—The Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland, around the coast of Hudson Bay, and on some of the islands of the Arctic Archipelago. Most of the Eskimos are essentially coastal dwellers, obtaining their food and clothing from the mammals of the sea. There are, however, groups of Eskimos living in the interior of Keewatin District on the west side of Hudson Bay who are inland people and who subsist chiefly on caribou and fish. In January, 1950, the Eskimo population of Canada, exclusive of Newfoundland, was estimated at 8,437.

The economy of these nomadic people depends entirely on trapping, hunting and fishing. Trapping, chiefly of the white fox, produces pelts to trade at the posts for the goods of civilization. Seal, walrus, white whale, caribou and Arctic char (sea trout) are the principal sources of native food.

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*Eskimos trading across the counter of a Hudson's Bay store. The aluminum discs are given in exchange for furs and then given back by the Eskimos in exchange for goods.*



The Eskimos have little or no organization beyond the family. They hunt in small groups, usually of two or more families with perhaps an outstanding individual as leader. Each group, following the movements of game and the changing seasons, secures its livelihood in its own district which has no definite boundaries. The Government of Canada, through Northern Administrations, Department of Resources and Development, has made continuous efforts to preserve the natural resources in Eskimo territory.

In recent years, the Canadian Government has considered with anxiety what the advance of civilization into the Arctic may mean to the future of their Eskimo citizens. Considerable sums have been spent in providing services which, it is hoped, will help the Eskimo to adjust himself to an Arctic world that is beginning to change after centuries of isolation. Canada's program for her Eskimos is a long-term one. It embraces education, health services, family allowances, handicrafts and protective administration.

Eskimos of the Eastern Arctic are given some education at mission day schools, but because of their nomadic tendency, they seldom remain very long at the settlements and the periods for teaching are therefore short. The Eastern Arctic Eskimos, however, have mastered a system of syllabic writing which most of them can now read and write proficiently. Advantage of this accomplishment has been taken to provide educational material on health matters, hygiene and native economics. Eskimo children along the Western Arctic Coast and the Mackenzie Delta attend government day schools or mission residential schools.

Medical and health services are provided by the Federal Government, assisted by residing missionaries, traders and the R.C.M.P. A number of nursing stations have been set up and mission hospitals with resident Government doctors are maintained, with the assistance of government grants, at Aklavik, Chesterfield Inlet and Pangnirtung. Government doctors and dentists usually accompany the Eastern Arctic Patrol to treat the natives at each point of call.

Family allowances are paid to Eskimo families in kind from a list of selected food items. This list is designed to supplement, not supplant, normal Eskimo dietary habit. The Canadian Handicraft Guild, with Government assistance, is encouraging Eskimo handicraft by instruction and by marketing the products.

The R.C.M.P. detachments throughout the Far North act as local representatives of the Government in all matters relating to Eskimo welfare. Contact is also maintained by radio, by inspection flights, and through the Eastern Arctic Patrol which carries representatives of all Government Departments concerned on annual inspection tours of the Arctic.

### *Immigration*

The Department of Citizenship and Immigration, which assumed responsibility for the administration of the Immigration Act and Regulations early in 1950, took definite steps during the year to accelerate the movement to Canada of increased numbers of carefully selected immigrants. Regulations governing the admissibility of immigrants were broadened considerably, a ban on the immigration of German nationals which had been in force since 1939 was lifted, and definite measures were taken to streamline administrative



*A Netherlands immigrant farmer points out the extent of his holdings near Richmond, Ont., to newly arrived sisters and brothers.*



procedures and to expand the services actively engaged in the overseas selection of suitable immigrants.

Classes now admissible to Canada, subject to being mentally and physically fit and of good character, are the following: British subjects born or naturalized in the United Kingdom of Great Britain and Northern Ireland, Australia, New Zealand, or the Union of South Africa; citizens of Ireland who have become citizens of the United Kingdom by registration under the British Nationality Act, 1948; citizens of Ireland, United States citizens, and citizens of France having sufficient funds to maintain themselves until established; and persons who, having entered Canada as non-immigrants, enlisted in the Canadian Armed Forces and having served in such Forces, have been honourably discharged; persons who satisfy the Minister, whose decision shall be

*Non-English speaking immigrants are taught the language in a simple, direct manner and, with the help of elementary texts, secure a 750-word vocabulary at citizenship classes held across Canada.*





final, that: (a) they are suitable immigrants having regard to the climatic, social, educational, industrial, labour, or other conditions or requirements of Canada; and (b) are not undesirable owing to their peculiar customs, habits, modes of life, methods of holding property, or because of their probable inability to become readily adapted and integrated into the life of a Canadian community and to assume the duties of Canadian citizenship within a reasonable time after their entry.

The decision to make German nationals admissible, subject to general regulations governing the entry of immigrants of other nationalities, resulted from the view of the Government that it was appropriate to place the immigration of Germans on a peacetime basis, and from the excellent record in Canada of German immigrants of pre-war years who have become an important, industrious, and loyal element of the Canadian population.

Immigration from overseas is being encouraged by every means possible. Representatives of the Settlement Service of the Immigration Branch are actively engaged in seeking and selecting persons possessing the required qualifications or experience to take advantage of opportunities for placement and permanent settlement in agricultural and business undertakings developed in Canada by the Settlement Service. Increased numbers of immigration officers have been sent to Europe, and others are being trained in Canada and will proceed overseas as soon as possible. Arrangements were completed during 1950 to provide free chest X-rays in addition to free medical examinations for all persons applying to the immigration offices at Paris, France, and in the British Isles.

As of Aug. 31, 1950, a total of 108,430 displaced persons had entered Canada, of whom 61,949 were admitted as close relatives of residents of this country, 1,263 were orphan children who were placed in homes throughout the country, and 30 were international exchange students.

Under the group movement plan, 45,188 displaced persons had been brought to Canada, including: farmers, 6,456; family farm groups, 4,765; woods workers, 3,600; textile workers, 586; textile workers' dependants, 16; domestics (married couples), 1,910; female domestics, 10,339; garment workers, 2,855; garment workers' dependants, 2,347; railway workers, 2,576; hydro workers, 2,484; building construction workers, 799; steel and foundry workers, 314; steel and foundry workers' dependants, 34; miners, 3,950; nurses, 52; special trades, 234; furriers, 462; furriers' dependants, 414; shoe workers, 110; general labourers, 447; general labourers' dependants, 268; cabinet makers, 92; cabinet makers' dependants, 2; blacksmiths, 20; handicraft workers, 26; handicraft workers' dependants, 30.

The number of immigrants admitted to Canada during the year ended Mar. 31, 1950, was 86,422, as compared with 125,603 in the fiscal year 1948-49, and 79,194 in 1947-48. Of the 1949-50 total, 78,762 arrived from overseas and 7,660 from the United States; 23,249 were of British origin, 1,870 French, and 61,303 represented 38 other racial groups.

Figures for tourists who, although not immigrants, submit to immigration examination at the International Boundary and ocean ports, showed a total entry for the year ended Mar. 31, 1950, of 39,139,000, made up of 24,128,000 visitors from other countries, 15,007,000 Canadians returning from trips to other countries, and 4,000 Canadians returning after residing in the United States. Comparable figures for the previous year were 25,090,000

visitors, 13,915,000 returning residents and 5,000 returned Canadians. The figures pertaining to Canadians returning from visits to other countries include persons who crossed and recrossed the International Boundary frequently.

## Citizenship

The Canadian Citizenship Act came into force on Jan. 1, 1947. Before that date, Canadian citizenship was not recognized officially. Internationally Canadians were regarded as "British Subjects domiciled in Canada". However, as a result of development in Canada's status as an independent nation within the Commonwealth, it became advisable to establish abroad a clear conception of Canadian citizenship which, at home, would also serve to bridge the gaps created by geography and racial descent. Under the provisions of the Act, all persons born in Canada automatically become Canadian citizens and cannot be deprived of their citizenship unless they themselves take definite steps to acquire another nationality. Immigrants who are naturalized in Canada become citizens and retain their citizenship so long as they remain here.

The enactment of the citizenship legislation does not weaken Commonwealth or other international ties. Although the designation "British Subject" has been dropped insofar as it applies to Canadians, a Canadian citizen still retains the status of a British subject. Nor have the rights of non-Canadian British subjects been changed. They will continue to have the right to vote, to obtain old age pensions and to apply for Canadian citizenship after five years' residence in Canada.

The new concept of Canadian citizenship under the Act has meant a definite strengthening of the standards of qualification upon which citizenship certificates are issued. Besides showing those qualities of character that would lead him to be a hard-working law-abiding citizen, the applicant must have an adequate knowledge of English or French and also a knowledge of Canadian history, geography, form of Government, and of the duties and responsibilities of good citizenship.

The Department of Citizenship and Immigration administers the Canadian Citizenship Act and provides leadership in the building of true citizenship among all Canadians through the promotion of unity among racial groups and the awakening in every Canadian, regardless of race or

*Candidates for Canadian citizenship taking the Oath of Allegiance before the Judge of the County of Carleton Court in the presence of the Crown Attorney.*



creed, of a deep conviction of the worth of the individual and the principles of democracy. The Canadian Citizenship Branch co-operates with provincial departments of education and national, provincial and local voluntary organizations in the development of citizenship programs designed to assist in the adjustment of newcomers to the Canadian way of life and to develop among established citizens an appreciation of the customs, culture and contributions of the new residents. During the year ended Mar. 31, 1950, certificates of Canadian citizenship were issued to 19,713 persons.

## ★ *Vital Statistics*

National statistics on births, stillbirths, marriages and deaths have been published since 1920 by the Dominion Bureau of Statistics under authority of the Statistics Act of 1918. At that time a plan was devised whereby the Dominion Bureau of Statistics and the vital statistics authority in each province as well as Yukon and the Northwest Territories would co-operate in the production of the national figures; registration was to be carried out by the provincial authorities and the legislation of each province was made to conform in essential features—one of which was compulsory registration—to a model Vital Statistics Act. Since the initiation of this collaborative national system, material progress has been made in modifying and improving registration techniques and procedures. Of particular interest in this regard was the revision in 1935 of the medical certificate of death.

Conferences on vital statistics held in 1943, 1944 and 1948 were attended by the provincial and federal officials, by representatives of other departments of government and interested national agencies. Topics discussed at these conferences covered such widely diversified problems as: registration affecting Indians; interprovincial exchange of vital records; establishment of standards for delayed registration of births; definition of vital statistics terms; standards of certification; divorce and adoption records; and revision of the model Vital Statistics Act. The 1944 Conference resulted in three major developments:—

- (1) The preparation of a national index covering all persons born in, or immigrating to, Canada since 1925 which is designed for use in connection with Family Allowances and for other governmental purposes.
- (2) The establishment of a Vital Statistics Council made up of a representative from each provincial vital statistics office and the federal officials concerned with vital statistics.
- (3) A revised Dominion-Provincial agreement on vital statistics which came into effect on July 1, 1945.

The Vital Statistics Council, which meets at least once a year, has been working towards improvement in statistical and registration techniques and promotion of complete and accurate registration of vital events. In recent years registration has been virtually complete in all provinces. The Province of Newfoundland became part of the Canadian Registration Area after its union with Canada on Mar. 31, 1949.

**Births.**—There have been several clear-cut cycles in the number of births recorded in Canada. From 1926 to 1930 there was a gradual upward trend from 232,750 to 243,495. This movement was then reversed during the depression period until 1937 when the number of births reached its lowest point at 220,235. From 1926 to 1930, Canada's birth rate was about 24 births per 1,000 population. The rate, however, dropped between 1930 and 1937 from 23.9 to 20.0. The influence of the War is reflected in the sharp increase that took place from 21.5 in 1940 to 28.6 in 1947. There was a





*Saskatoon lies just south of the centre of the Province of Saskatchewan. Its population of about 50,000 spreads out over  $13\frac{1}{2}$  square miles of rolling prairie, leaving 62 square yards of elbow room for every man, woman and child.*

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drop to 27.0 in 1948, a trend noticeable in most other civilized countries of the world. The rate in 1949 was 26.9.

Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that an accurate ratio of male to female births has become one of the criteria of complete registration. The numbers of males to every 1,000 females born in Canada in 1941-46 varied between 1,057 and 1,067 and were 1,053 and 1,060 in 1948 and 1949, respectively.

Hospitalization and medical attendance at birth have increased greatly in recent years. In 1926-30 only 22 p.c. of live births occurred in hospital or other institutions, while in 1948 the proportion was 72 p.c. for Canada as a whole including Yukon and the Northwest Territories. In some provinces, particularly where either free or prepaid medical care service is provided, the proportions of hospitalized births were much higher, running to 96 p.c. in one province and to between 88 and 95 p.c. in four others.

**Deaths.**—The annual death rate in Canada averages less than 10 per 1,000 population, which is fairly low in comparison with other countries.

The ten leading causes of death accounted for about 84 p.c. of the total in 1949. Diseases of the heart, considered as a group, was the most important with a rate of 266.9 per 100,000 population; the death rate from this cause has increased yearly, from 231.5 in 1941. The second leading cause of death in 1949 was cancer with 124.8 deaths per 100,000 population, the rate having advanced from 80.7 in 1926. The increase in cancer deaths is rather misleading: it is due in part to improvement in diagnostic and X-ray techniques

which enable the causes of death to be indented, instead of being attributed to other or unknown causes, but is mainly due to the ageing of the population. Cerebral hæmorrhage and allied cerebral conditions as a group constituted the third leading cause of death in 1949 accounting for 79 deaths per 100,000 population; accidents and other violent deaths, fourth with 9,240 deaths and a rate of 70.1. On the other hand tuberculosis which in 1926 was fourth with almost 8,000 deaths was in eighth place in 1949 with 4,010 deaths and a rate of 30.4, while the influenza, bronchitis and pneumonia group, the leading killers in 1926 with 14,188 deaths, accounted for 7,320 deaths in 1949 and was fifth in that year with a rate of 55.6.

Deaths of mothers due to childbirth have shown marked reduction in the past two decades and particularly since 1940. During the period 1926-30 an average of 57 mothers died for every 10,000 children born alive; in 1940 the ratio was 40, in 1947 and 1948 it was further reduced to 15 and in 1949 was 14.

During recent years, the death rate for children under one year of age has shown substantial reduction, falling from 102 per 1,000 live births in 1926 to 60 in 1941 and 43 in 1949.

### *Infant Deaths and Death Rates, by Provinces, 1926 and 1944-49*

| Province            | Infant Deaths under One Year |        |        |        |        |        |                   | Rates per 1,000 Live Births |      |      |      |      |      |                   |
|---------------------|------------------------------|--------|--------|--------|--------|--------|-------------------|-----------------------------|------|------|------|------|------|-------------------|
|                     | 1926                         | 1944   | 1945   | 1946   | 1947   | 1948   | 1949 <sup>a</sup> | 1926                        | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 <sup>a</sup> |
| Nfld...             |                              |        |        |        |        |        | 451 <sup>1</sup>  |                             |      |      |      |      |      | 48 <sup>1</sup>   |
| P.E.I....           | 123                          | 102    | 102    | 97     | 135    | 97     | 135               | 70                          | 45   | 45   | 35   | 45   | 34   | 48                |
| N.S....             | 882                          | 838    | 823    | 822    | 840    | 695    | 750               | 80                          | 54   | 53   | 46   | 44   | 39   | 42                |
| N.B....             | 1,095                        | 1,035  | 966    | 1,066  | 1,041  | 1,047  | 993               | 106                         | 77   | 71   | 66   | 59   | 61   | 60                |
| Que....             | 11,666                       | 6,918  | 6,464  | 6,110  | 6,583  | 6,211  | 6,031             | 142                         | 68   | 62   | 55   | 57   | 54   | 52                |
| Ont....             | 5,302                        | 3,346  | 3,209  | 3,653  | 3,914  | 3,684  | 3,973             | 78                          | 43   | 41   | 37   | 36   | 35   | 37                |
| Man....             | 1,122                        | 786    | 781    | 885    | 931    | 765    | 794               | 77                          | 49   | 48   | 47   | 46   | 41   | 41                |
| Sask....            | 1,681                        | 858    | 824    | 1,004  | 1,018  | 867    | 834               | 81                          | 47   | 44   | 47   | 44   | 40   | 39                |
| Alta....            | 1,233                        | 889    | 862    | 945    | 915    | 930    | 823               | 85                          | 46   | 43   | 43   | 37   | 39   | 33                |
| B.C....             | 588                          | 767    | 792    | 852    | 959    | 868    | 858               | 58                          | 40   | 42   | 38   | 36   | 33   | 31                |
| Canada <sup>a</sup> | 23,692                       | 15,539 | 14,823 | 15,434 | 16,336 | 15,164 | 15,191            | 102                         | 55   | 51   | 47   | 45   | 44   | 43                |

<sup>a</sup> April to December.  
Territories.

<sup>a</sup> Exclusive of Newfoundland, Yukon and the Northwest

**Natural Increase.**—The rate of natural increase in population represents the difference between the birth and death rates and is similarly expressed in terms of 1,000 population. In 1926 the natural increase rate amounted to 13.3 but, with the rapidly declining birth rates of the depression period coupled with slower declining death rates, the natural increase rate declined to 9.7 in 1937. During the war years, the natural increase rate rose proportionally with the increased births to 12.2 in 1941, 13.9 in 1943 and 19.2 in 1947. The decline in the birth rate to 26.9 in 1949 and a slight decline to 9.2 in the death rate, brought the natural increase rate down to 17.7 in 1949.

**Marriages.**—In 1929 marriages in Canada numbered 77,288 having shown a steady increase from 66,658 in 1926. The depression exercised a marked influence on marriages and on the marriage rate, causing a steep downward movement until 1932, when the number of marriages was 62,531. From 1933 to 1942 a fairly steady increase took place. The following table shows that the peak was reached in 1946 followed by declines in 1947, 1948 and 1949.

## Births, Marriages and Deaths, 1926-49

(Exclusive of Newfoundland and the Territories)

| Year                    | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|-------------------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|                         | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| Av. 1926-30...          | 236,521 | 24.1              | 71,886    | 7.3               | 108,925 | 11.1              | 1,339           | 5.7               |
| Av. 1931-35...          | 228,352 | 21.5              | 68,594    | 6.5               | 103,602 | 9.8               | 1,153           | 5.0               |
| Av. 1936-40...          | 228,767 | 20.5              | 96,824    | 8.7               | 109,514 | 9.8               | 1,043           | 4.6               |
| 1941.....               | 255,317 | 22.2              | 121,842   | 10.6              | 114,639 | 10.0              | 901             | 3.5               |
| 1942.....               | 272,313 | 23.4              | 127,372   | 10.9              | 112,978 | 9.7               | 818             | 3.0               |
| 1943.....               | 283,580 | 24.0              | 110,937   | 9.4               | 118,635 | 10.1              | 798             | 2.8               |
| 1944.....               | 284,220 | 23.8              | 101,496   | 8.5               | 116,052 | 9.7               | 776             | 2.7               |
| 1945.....               | 288,730 | 23.9              | 108,031   | 8.9               | 113,414 | 9.4               | 660             | 2.3               |
| 1946.....               | 330,732 | 26.9              | 134,088   | 10.9              | 114,931 | 9.4               | 595             | 1.8               |
| 1947.....               | 359,094 | 28.6              | 127,311   | 10.1              | 117,725 | 9.4               | 554             | 1.5               |
| 1948.....               | 347,307 | 27.0              | 123,314   | 9.6               | 119,384 | 9.3               | 510             | 1.5               |
| 1949 <sup>b</sup> ..... | 353,857 | 26.9              | 121,432   | 9.2               | 121,176 | 9.2               | 509             | 1.4               |

<sup>1</sup> Per 1,000 population.

<sup>2</sup> Per 1,000 live births.

## Births, Marriages and Deaths, by Provinces, 1949

(Preliminary figures)

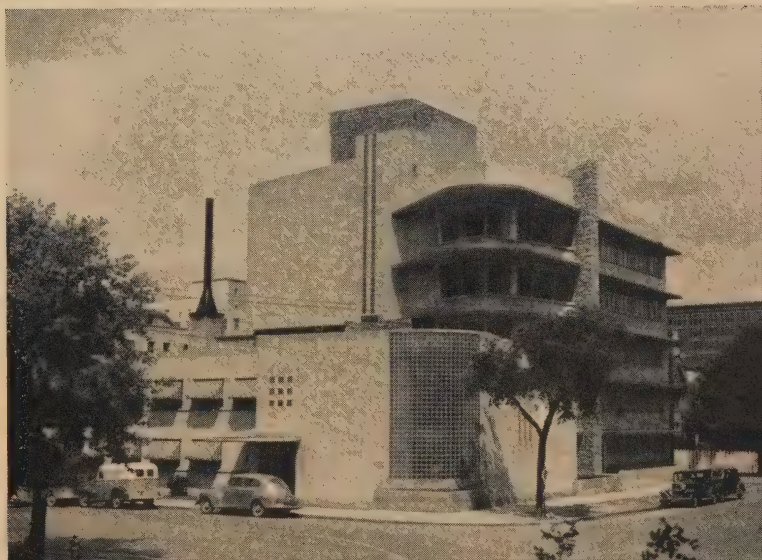
| Province                   | Births  |                   | Marriages |                   | Deaths  |                   | Maternal Deaths |                   |
|----------------------------|---------|-------------------|-----------|-------------------|---------|-------------------|-----------------|-------------------|
|                            | No.     | Rate <sup>1</sup> | No.       | Rate <sup>1</sup> | No.     | Rate <sup>1</sup> | No.             | Rate <sup>2</sup> |
| N't'l'd <sup>3</sup> ..... | 9,337   | 35.6              | 1,975     | 7.5               | 2,064   | 7.9               | 20              | 2.1               |
| P.E.I.....                 | 2,831   | 30.1              | 619       | 6.6               | 924     | 9.8               | 1               | 0.4               |
| N.S.....                   | 17,737  | 27.5              | 5,058     | 7.8               | 5,980   | 9.3               | 20              | 1.1               |
| N.B.....                   | 16,674  | 32.3              | 4,251     | 8.2               | 4,874   | 9.4               | 16              | 1.0               |
| Que.....                   | 116,828 | 30.1              | 33,485    | 8.6               | 34,114  | 8.8               | 233             | 2.0               |
| Ont.....                   | 106,601 | 24.2              | 43,304    | 9.8               | 43,371  | 9.8               | 134             | 1.3               |
| Man.....                   | 19,289  | 24.8              | 7,265     | 9.3               | 6,919   | 8.9               | 25              | 1.3               |
| Sask.....                  | 21,662  | 25.2              | 7,037     | 8.2               | 6,596   | 7.7               | 27              | 1.2               |
| Alta.....                  | 24,935  | 28.6              | 9,037     | 10.4              | 7,083   | 8.1               | 25              | 1.0               |
| B.C.....                   | 27,300  | 24.5              | 11,376    | 10.2              | 11,315  | 10.2              | 28              | 1.0               |
| Canada <sup>4</sup> .....  | 353,857 | 26.9              | 121,432   | 9.2               | 121,176 | 9.2               | 509             | 1.4               |

<sup>1</sup> Per 1,000 population.

<sup>2</sup> Per 1,000 live births.

<sup>3</sup> April to December.

<sup>4</sup> Exclusive of Newfoundland, Yukon and the Northwest Territories.



One of Winnipeg's modern medical clinics, several of which have been erected since the end of the War.





*A new Member being introduced to the House of Commons on the opening day of the Third Session of Canada's Twenty-First Parliament, Aug. 29, 1950.*

# The Government

THE constitution of Canada is based on the British North America Act, 1867, and its amendments. It is federal in form, with many features borrowed from the British Parliamentary system and adapted to Canadian practice. The Act divides the field of legislative and executive power between national and provincial authorities, giving to the provinces control over such items as education, the administration of justice, municipal institutions, the establishment and maintenance of prisons and hospitals and the administration of public lands. The provinces also have the power of direct taxation to raise revenue for provincial purposes. The field of the Federal Government may be described as the power to make laws for the peace, order and good government of Canada in relation to all matters not assigned exclusively to the provinces. The Federal Government also has unlimited powers of taxation.

In both the federal and provincial fields there is responsible government, whereby the Ministry is answerable for its conduct to the elected representatives of the people in the House of Commons or the Legislative Assemblies. Under the constitution the courts administer the law as it is drawn up and amended by the legislatures.

**Federal Government.**—The Federal Government is composed of the King (represented by the Governor General), the Senate and the House of Commons. The Governor General, appointed by the King usually for a five-year term, acts only on the advice of the King's Privy Council for Canada, a committee of which constitutes the Ministry of the day. The Ministry, or Cabinet, which is made up of Members of the House of Commons or the Senate, is responsible to Parliament and resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

The Legislative Branch of Government, consisting of the Senate and the House of Commons, is responsible for the enactment of all legislation. Bills may originate in either the Senate or the House of Commons, although the introduction of those for the appropriation of any part of the public revenue is restricted to the House of Commons. Bills must pass both Houses and receive Royal Assent before becoming law. In practice most Public Bills originate in the House of Commons and all Private Bills in the Senate.

The Senate has 102 members. Quebec and Ontario each has 24, Nova Scotia and New Brunswick 10 each, the four western provinces 6 each, Newfoundland 6 and Prince Edward Island 4. Membership is for life, vacancies being filled by the government of the day. The House of Commons has 262 members elected directly by the people for a maximum term of five





*The Premiers of the ten provinces of Canada met at Quebec, Sept. 25 to 28, 1950, as delegates to the Federal-Provincial Conference on Constitutional Amendment. It was the second session of the Conference which began at Ottawa in January, 1950, and the first Federal-Provincial Conference ever to be held in a provincial capital. The Premiers were received by His Excellency Viscount Alexander of Tunis, Governor General of Canada (centre front) after the opening meeting which was under the Chairmanship of the Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada (on the Governor General's right). The Conference, which is continuing at a later date, is to work out a method by which the Canadian constitution can be amended in Canada in all respects.*

years. The number of members assigned to each province is computed according to population and is adjusted following each decennial census. Provincial distribution at present is as follows:—

|                   |    |                  |    |                   |   |
|-------------------|----|------------------|----|-------------------|---|
| Ontario.....      | 83 | Alberta.....     | 17 | Newfoundland... . | 7 |
| Quebec.....       | 73 | Manitoba.....    | 16 | Prince Edward     |   |
| Saskatchewan....  | 20 | Nova Scotia..... | 13 | Island.....       | 4 |
| British Columbia. | 18 | New Brunswick..  | 10 | Yukon.....        | 1 |

The right to vote in federal elections is conferred on all British subjects, men and women, who have attained the age of 21 and have resided in Canada for 12 months prior to polling day. The choice of the Canadian electorate not only determines who shall govern the country but, by deciding which party receives the second largest number of seats in the House of Commons, it settles which of the major parties becomes the Official Opposition. The function of the Opposition, which occupies an essential place in the Parliamentary system, is to offer intelligent and constructive criticism of the government of the day.

The judicial branch of the Federal Government comprises the Supreme Court of Canada, the Exchequer Court of Canada and courts established under the Railway Act, the Bankruptcy Act and the Farmers' Creditors Arrangement Act. The Supreme Court is the final court of appeal in Canada.



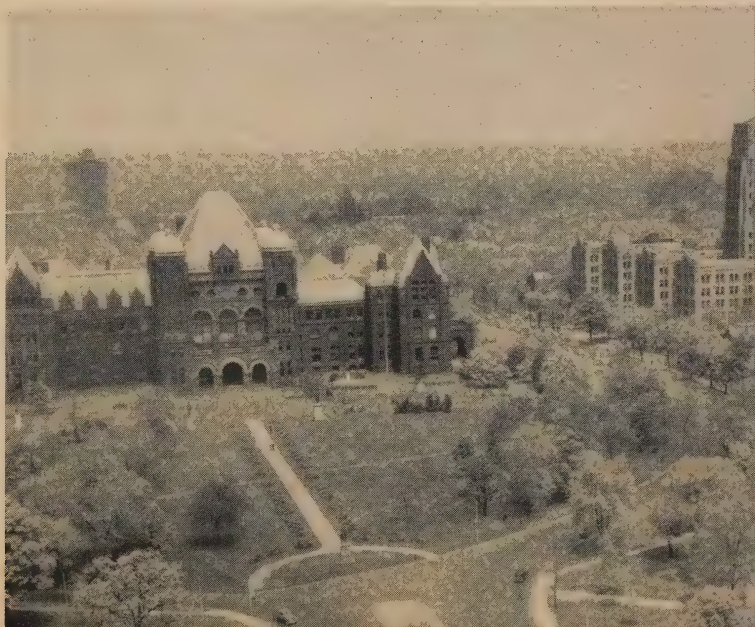
The Chief Justice of Canada and the puisne judges of the Supreme and Exchequer Courts are appointed by the Governor General in Council.

**Provincial Government.**—In the provinces, government is conducted along the same general lines as the Federal Government. The Lieutenant-Governor in each province is the representative of the Crown and is appointed by the Governor General in Council for a term of five years. The provinces, with the exception of Quebec, have one legislative body known as the Legislative Assembly, whose members are elected by popular vote. Quebec still retains a second legislative body, corresponding to the Senate, known as the Legislative Council, the members of which are appointed for life. In the provinces, the Executive Councils perform functions parallel to those of the Cabinet at Ottawa.

The Legislature of each province makes laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial, civil and criminal courts. The judges of the Superior, District and County Courts in each province, except those of the Courts of Probate in Nova Scotia and New Brunswick, are appointed by the Federal Government from the bars of their respective provinces. Judges' salaries and pensions are also fixed by the Federal Parliament.

**Government of the Territories.**—Yukon and the Northwest Territories, those vast northern areas with their small and scattered populations, are under the administration and protection of the Federal Government. Yukon has a local government composed of a Commissioner appointed by the Governor General in Council and a Territorial Council of three members elected for a three-year term. The Government of the Northwest Territories is vested in a Commissioner assisted by a Deputy Commissioner and five Councillors, all of whom are appointed by the Governor General in Council. These Councils perform much the same functions as do the Provincial Governments but act under instructions from the Federal Government. (See also pp. 32-33.)

*Ontario Parliament Buildings, Queen's Park, Toronto. To the left is the Legislative Building and, to the right, the Whitney Block occupied by Ontario Government offices.*



**Municipal Government.**—Under the British North America Act, the municipalities are the creations of the Provincial Governments and for this reason their bases of organization and their powers differ. However, almost everywhere municipal governments, like other forms of government, have found their spheres of activity continually broadening and they have developed considerable powers of local self-government.

## ★ *Canada's External Relations\**

**International Status.**—From the time of its colonial beginnings in the seventeenth century, Canada has been closely linked—through immigration, trade, culture and political ties—to a steadily increasing number of other countries. By a gradual process, it achieved that full control over its external relations which it had obtained earlier over domestic affairs.

Canada is an independent nation, entirely responsible for its own foreign policy. By choice, it is associated in a number of ways with other States. Of these associations, the oldest is that of the Commonwealth, that group of free States which arose from the organic growth of the British Empire. The other members are Australia, Ceylon, India, New Zealand, Pakistan, the Union of South Africa and the United Kingdom. The ties that hold them together are common ideals and common interests. They recognize the King as the symbol of their free association and, as such, the Head of the Commonwealth.

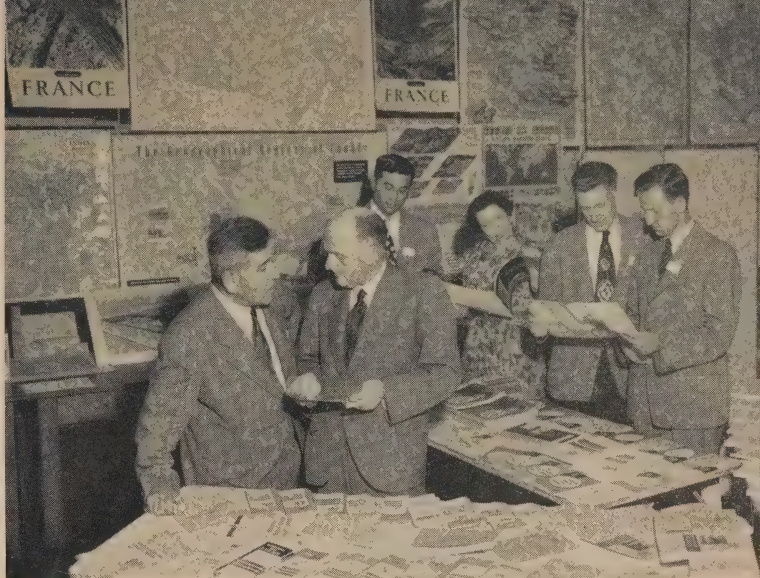
\*The Department of External Affairs produces a number of publications dealing with Canada's external developments including the monthly bulletin *External Affairs* and the annual report *Canada and the United Nations*.



The Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada (left), confers with Mr. R. G. Menzies, Prime Minister of Australia, during Mr. Menzies' visit to Ottawa in August, 1950.



*UNESCO International Seminar, held during the summer of 1950 at Macdonald College, Ste. Anne de Bellevue, Que., brought together a group of teachers of many races and religions from 22 different countries to study geography in relation to international understanding.*



All members are equal in status and practise close co-operation and consultation in matters of common concern. For this purpose they maintain a number of committees and other bodies. Among these the recently established Commonwealth Consultative Committee on South and Southeast Asia may be taken as an example. By joining in the discussions and plans of this body, Canada has once more shown its awareness that its own well-being and that of the countries associated with it depend on world-wide prosperity and economic development. The Committee has recognized that Commonwealth countries of south and southeast Asia are not the only ones needing technical assistance to attain this goal, and has invited other countries to associate themselves with its work.

**Collective Security and Defence.**—Support of the United Nations as an agency of collective security is a cornerstone of Canadian policy. When the United Nations called for action to defend the Republic of Korea against aggression, three Canadian destroyers were at once made available for operation in Korean waters, and shortly thereafter a squadron of transport aircraft for the trans-Pacific airlift. At the call from the United Nations for ground forces, recruitment of a Canadian Army Special Force was authorized by Parliament to enable Canada to fulfil its obligations under the United Nations Charter and the North Atlantic Treaty.

Canada is also an active member of the North Atlantic Treaty Organization, which is designed to provide the basis for collective defence among twelve nations of the North Atlantic region. In September, 1950, the Canadian Parliament authorized a special appropriation of \$300,000,000, mainly for the production of military equipment for European members of the Treaty to assist them to strengthen their defences. In September, 1950, the Treaty nations agreed in principle to the establishment of an integrated western European Force. The Canadian Government indicated that, provided Parliament approved, and if the operations in Korea were successfully



terminated, the Canadian Army Special Force might be available as part of an integrated force in Western Europe.

As a North American country Canada's defence is closely related to that of the United States, and for several years there has been close co-operation in defence between the two countries. The Permanent Joint Board on Defence, established in 1940, on which Canada and the United States are equally represented, has facilitated this close co-operation.

The international situation has compelled free nations, Canada among them, to look to their defences. Defence appropriations, which in the year ended Mar. 31, 1950, were \$383,000,000, were raised for the 1950-51 fiscal year to about \$867,000,000, an increase of over 125 p.c. In addition about \$120,000,000 was appropriated for related defence expenditures such as aviation and atomic energy research.

**The United Nations and the Specialized Agencies.**—Canada's development towards the stature of a Middle Power is to-day shown in its added responsibilities undertaken in a world where the remotest nations are neighbours, and where shrunk distances are measured in terms of flying hours. Since signing the Charter of the United Nations at San Francisco in 1945, Canada has taken an active part in the deliberations of the United Nations. Canada is at present serving its second term (January, 1950, to December, 1952) as a member of the Economic and Social Council; its first term ran from January, 1946, to December, 1948. From January, 1948, to December, 1949, Canada was a member of the Security Council, having been elected to one of the six non-permanent seats. Canada is also a permanent member of the United Nations Atomic Energy Commission. In addition, Canada is a member of each of the thirteen specialized agencies of the United Nations.

**Economic Co-operation.**—Canada emerged from the Second World War with an immensely greater productive capacity than in 1939 and as a relatively large creditor nation on current account. The reconstruction of Europe and the rebuilding of international trade are essential to Canada's interests as a great trading nation and Canadian resources have been directed to this end as well as to internal reconstruction. Canada has made available over \$2,000,000,000 in export credits and relief to its recent Allies, including a loan of \$1,250,000,000 to the United Kingdom. Canada actively supported the establishment of the International Bank for Reconstruction and Development and the International Monetary Fund. Canada also took a leading part in promoting the International Trade Organization of the United Nations; in working out the charter of the Organization which was drafted in Havana in 1947 and 1948; in conducting the Annecy tariff negotiations of 1949; and in the multilateral tariff negotiations under the General Agreement on Tariffs and Trade which began at Torquay, England, in September, 1950. As well as joining in the discussions and plans of the Commonwealth Consultative Committee on South and Southeast Asia, Canada is also associated with the Organization for European Economic Co-operation.

**Diplomatic and Consular Service.**—The period of the Second World War was marked by a rapid expansion of Canadian representation abroad, which had been slowly developing since 1880, when the first High Commissioner for Canada was sent to London. New missions were opened in most member States of the Commonwealth and in many foreign countries. The growth of the diplomatic service continued after the end of the War, with the



*The Houses of Parliament from Major's Hill Park, Ottawa.*

recruitment of personnel returning from the Armed Forces. Diplomatic or consular missions are now established in thirty-seven countries.

At present Canada has High Commissioners in Australia, India, New Zealand, Pakistan, South Africa and the United Kingdom. There are Canadian Embassies in Argentina, Belgium, Brazil, Chile, China, Cuba, France, Greece, Ireland, Italy, Mexico, the Netherlands, Peru, Turkey, the Union of Soviet Socialist Republics and the United States. Legations are located in Czechoslovakia, Denmark, Norway, Poland, Sweden, Switzerland and Yugoslavia. The Ambassador to Belgium is also accredited as Minister to Luxembourg; the Minister to Sweden as Minister to Finland; and the Minister to Norway as Minister to Iceland.

The Canadian Consular Service was first established during the Second World War. Consular offices are now located at New York, Chicago, San Francisco, Boston, Detroit, Portland (Maine), Lisbon, Caracas, Shanghai, Manila, Geneva, São Paulo and Frankfurt.

Canada also has a Permanent Delegation to the United Nations at New York City, to the European Office of the United Nations at Geneva and to the O.E.E.C. (Organization for European Economic Co-operation) at Paris; a civilian Mission at Bonn and a military Mission at Berlin; and a civilian Mission at Tokyo.

Fifty-six countries maintain representation in Canada.





# Health and Welfare Veterans Affairs

## ★ *Public Health*

THE responsibility for public health in Canada rests mainly with provincial and local governments, with the Federal Government assuming an increasing share in co-ordination and assistance, and important contributions being made by private associations and organizations. Planning, supervision and financial responsibility have been largely assumed by the provinces, and to a lesser extent by the Federal Government, with actual administration being carried on for the most part by municipal and other local authorities.

The principal co-ordinating agency between federal and provincial governments is the Dominion Council of Health which is composed of the Deputy Minister of National Health, as chairman, the chief health officer of each province and five other members. The Council advises the Minister of National Health and Welfare on the formulation of policy. It is largely responsible for the development of an integrated and co-operative health program and for advising on the establishment within the Department of National Health and Welfare of services that can be better operated on a national scale. Under the Council, federal-provincial committees deal with specific aspects of public health.

## *Federal Health Services*

A federal department of health was first established in 1919 to administer early health legislation such as the Quarantine, Opium and Narcotic Drug and Proprietary or Patent Medicine Acts, to promote research and health education and to co-operate with the provinces in the co-ordination of public-health work in Canada. In 1928 these functions, together with health and other services for veterans, were taken over by the new Department of Pensions and National Health. In 1944 the Department of Veterans Affairs was established to assume responsibility for all services to veterans and the Department of National Health and Welfare was established. The various divisions of the Department maintain liaison with the corresponding divisions in the provinces, provide advisory and consultative services and educational material and, on request, conduct special surveys.

The Department has also certain statutory responsibilities in the administration of the Food and Drugs Act, Proprietary or Patent Medicine Act, Opium and Narcotic Drug Act, Quarantine Act, Public Works Health Act, Leprosy Act and sections of the Immigration and Canada Shipping Acts. In 1945 administration of health services for Indians and Eskimos was assumed by the Department. The Department shares with the provinces the cost of pensions for the blind, passes on the eligibility of applicants for pension on the basis of examinations arranged and paid for by the Federal Government and makes grants to the provinces for the remedial treatment of the blind. The



*A Federal Government hospital recently erected at a cost of \$2,000,000 on Moose Factory Island, a few miles from James Bay. The hospital serves about 900 Indians. Moose Factory is one of Ontario's oldest settlements, dating back to 1673.*

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Civil Aviation Medicine Division acts in an advisory capacity to the Department of Transport in all matters pertaining to the safety, health and comfort of air crew and air passengers. Promotion of the health of federal civil servants is a departmental responsibility.

**The National Health Grant Program.**—Under the National Health Grant Program which commenced in 1948, annual grants, totalling over \$30,000,000 in the first year of the program, were made available to the provinces for the extension of existing health services and facilities. The program includes grants for general public health, tuberculosis control, mental health, venereal disease control, cancer control, services for crippled children, professional training, public health research, hospital construction and for the carrying out of health surveys. In the fiscal year ended Mar. 31, 1951, the total amount made available under all grants was increased to about \$34,500,000.

**Medical Research.**—Federal assistance to medical research in Canada is provided through the research grants administered by the Medical Research Division of the National Research Council, through the National Health Grant Program administered by the Department of National Health and Welfare and through the grant program and research activity of the Defence

Research Board. Over-all direction and control is exercised by the Privy Council Committee on Scientific and Industrial Research; co-ordination is achieved through the use of advisory committees composed of representatives of government, the medical schools and other research organizations.

### *Provincial and Municipal Services*

Although basic local health services such as sanitation, communicable disease control and registration of births, deaths and marriages are generally in the hands of cities, municipalities, counties or other local units, Provincial Governments have gradually assumed increased financial responsibility, with correspondingly increased supervision and control. The Provincial Departments of Health generally plan and direct such health services as vital statistics, infant, child and maternal hygiene, public health laboratories, health education and public health nursing, as well as communicable disease control and public health engineering.

Diagnostic and treatment clinics are provided in various provinces for one or more of such diseases as tuberculosis, venereal diseases, cancer and poliomyelitis. In some cases vaccines, sera and other special drugs are supplied by provincial laboratories to practising physicians as well as to public health officials. Other activities of the local and provincial health departments include dental services, school medical services, epidemiology and industrial hygiene.

**Institutions.**—The provinces generally operate tuberculosis sanatoria or contribute to their maintenance. Mental hospitals also are usually provincial institutions. The provinces provide grants to assist in the maintenance of public hospitals for acute diseases, which receive additional aid from municipalities and private benefactors.

**Health Units.**—In most provinces health districts or units, which in many cases correspond to county subdivisions, are responsible for the administration of public health functions. In some provinces, where the municipal-doctor plan has been developed, one or more municipalities employ a full-time doctor to serve their residents.







*The Canadian Red Cross Society is developing a blood transfusion service which aims to supply all hospitals with free blood and plasma to be available to patients everywhere without charge.*

**Medical and Hospital Care.**—Free treatment is given to indigents, and, in some cases, with respect to certain diseases such as tuberculosis, to all residents. In Alberta a maternity hospitalization service is provided by the Province. In Saskatchewan and British Columbia there are Provincial Government prepaid hospitalization programs supported by an annual tax on each resident with a maximum payment for a family; the plans provide for hospital care, including operating-room facilities, X-ray and other examinations. The Newfoundland Government operates cottage hospitals in outport areas and, in conjunction with these, medical and hospital care is provided upon payment of an annual fee. Private prepaid medical care and hospital insurance plans have been extensively developed throughout Canada.

### *Non-Governmental Health Agencies*

In addition to many local and provincial health organizations, major national agencies are: the Canadian Red Cross, which has converted its war-time blood-donor system into a civilian blood bank and transfusion service; the Victorian Order of Nurses, with well-established home-nursing and maternity services; the Order of St. John, with its training and service in first aid, home nursing, and blood grouping; and the Canadian Tuberculosis Association, whose provincial branches conduct mass X-ray surveys and

educational programs. The Health League of Canada sponsors educational and publicity work in health generally and the Canadian Mental Health Association operates similarly in its field. The Department of National Health and Welfare was instrumental in forming the National Cancer Institute and the Canadian Arthritis and Rheumatism Society. These and other national health agencies have been established for purposes of education, publicity, research and other services.

## Statistics of Health Institutions

The Dominion Bureau of Statistics collects, through its Division of Health and Welfare, statistics concerning public and private hospitals, institutions for incurables, federal hospitals, tuberculosis institutions and mental institutions. The institutions reporting in 1948 were as follows:—

*Hospitals, by Types and Provinces, 1948*

| Type  | P.E.I.   | N.S.      | N.B.      | Que.       | Ont.            | Man.      | Sask.      | Alta.      | B.C.           | Yukon<br>and<br>N.W.T. | Canada       |
|---|----------|-----------|-----------|------------|-----------------|-----------|------------|------------|----------------|------------------------|--------------|
| Public—acute dis-<br>eases.....                 | 6        | 39        | 30        | 88         | 156             | 42        | 135        | 98         | 74             | 10                     | 678          |
| Chronic.....                                    | —        | —         | —         | 5          | 10 <sup>1</sup> | 1         | —          | 2          | 3 <sup>2</sup> | —                      | 21           |
| Private.....                                    | —        | 5         | 5         | 56         | 48              | 7         | 34         | 18         | 34             | 2                      | 209          |
| Federal.....                                    | —        | 6         | 6         | 8          | 22              | 12        | 4          | 10         | 13             | 2                      | 83           |
| Tuberculosis<br>institutions <sup>3</sup> ..... | 1        | 11        | 6         | 27         | 20              | 8         | 4          | 5          | 17             | —                      | 99           |
| Mental<br>institutions <sup>4</sup> .....       | 1        | 16        | 1         | 8          | 17              | 4         | 3          | 5          | 4              | —                      | 59           |
| <b>Totals.....</b>                              | <b>8</b> | <b>77</b> | <b>48</b> | <b>192</b> | <b>273</b>      | <b>74</b> | <b>180</b> | <b>138</b> | <b>145</b>     | <b>14</b>              | <b>1,149</b> |

<sup>1</sup> Includes 2 units in public hospitals.

<sup>2</sup> Three branches of the Provincial Infirmary.

<sup>3</sup> Includes 54 sanatoria, 12 federal hospitals for tuberculosis only, 7 units in federal hospitals, and 26 units in other hospitals.

<sup>4</sup> Includes 2 federal hospitals.

"The Little Red Door", Canadian Cancer Society Information Centre, Toronto. The Society, which serves particularly in the fields of lay education and welfare, has divisions all across Canada.







*Victoria General Hospital, maintained by the Nova Scotia Provincial Government at Halifax, N.S.*

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In 1948 returns were received from 678 of the 688 public hospitals for acute diseases known to be in operation during the year. Of the reporting hospitals, 562 had X-ray facilities, 345 had clinical laboratories and 277 had physio-therapy facilities. During the year 1,707,946 patients received treatment and the average cost per patient day was \$5.55. The number of salaried doctors in these hospitals decreased by 9 p.c. over the previous year, graduate nurses increased by 6 p.c. and the number of student nurses and probationers enrolled increased by 7 p.c.

Of the 59 mental institutions in Canada in 1948, 41 were operated by the provinces, 14 were county or municipal hospitals, two were federal and two were private hospitals. At the end of the year they reported 55,858 patients under care, 51,050 of whom were in residence. Of the total under care, 75 p.c. were psychotic, 22 p.c. were mental defectives without psychosis, 2 p.c. were epileptics without psychosis and 1 p.c. had other types of mental disorder. Total revenues of these institutions amounted to \$35,059,187, 78 p.c. of which came from Provincial Governments, 1 p.c. from the Federal Government, 3 p.c. from municipal governments, 12 p.c. from paying patients and 6 p.c. from other sources.



The 94 tuberculosis institutions which reported data in regard to patients in 1948, had 12,950 patients in residence at the end of the year, compared with 12,407 in 95 institutions at the end of 1947. Of the total revenue of \$16,918,198 received by sanatoria (exclusive of federal hospitals for tuberculosis) in 1948, 66 p.c. came from Provincial Governments, 9 p.c. from federal grants, 11 p.c. from municipalities, 4 p.c. from patients and 10 p.c. from other sources. Much work has been done in recent years by the Provincial Boards of Health in the fight against tuberculosis. In 1948 the total number of examinations made by tuberculosis clinics and mass surveys was 2,136,378, an increase of 132,679 over the number reported in 1947.

The official bed capacities by types of institution, and by provinces, and the numbers of beds available for every 10,000 of the estimated population for 1948, are given in the following table.

### *Bed Capacity in Reporting Hospitals and Bed Capacity per 10,000 Population, by Provinces, 1948*

NOTE.—Rates are based on population figures shown on p. 59.

| Province or Territory      | Public—<br>Acute<br>Diseases <sup>1</sup> | Chronic          | Private      | Tuber-<br>culosis <sup>2</sup> | Mental <sup>3</sup> | All<br>Hospitals |
|----------------------------|---|------------------|--------------|--------------------------------|---------------------|------------------|
| TOTAL BEDS                 |   |                  |              |                                |                     |                  |
| P.E.I.....                 | 465                                       | —                | —            | 145                            | 250                 | 860              |
| N.S.....                   | 2,965                                     | —                | 25           | 874                            | 2,605               | 6,469            |
| N.B.....                   | 2,142                                     | —                | 118          | 913                            | 1,100               | 4,273            |
| Que.....                   | 15,383                                    | 388 <sup>4</sup> | 995          | 4,045                          | 14,555              | 35,366           |
| Ont.....                   | 15,590                                    | 1,803            | 903          | 4,308                          | 16,099              | 38,703           |
| Man.....                   | 3,517                                     | 430              | 111          | 1,253                          | 2,477               | 7,788            |
| Sask.....                  | 4,658                                     | —                | 119          | 871                            | 3,650               | 9,298            |
| Alta.....                  | 4,943                                     | 117              | 201          | 751                            | 2,633               | 8,645            |
| B.C.....                   | 5,795                                     | 329 <sup>5</sup> | 858          | 1,352                          | 3,053               | 11,387           |
| Yukon and N.W.T...         | 441                                       | —                | 20           | —                              | —                   | 461              |
| <b>Canada.....</b>         | <b>55,899</b>                             | <b>3,067</b>     | <b>3,350</b> | <b>14,512</b>                  | <b>46,422</b>       | <b>123,250</b>   |
| BEDS PER 10,000 POPULATION |   |                  |              |                                |                     |                  |
| P.E.I.....                 | 50  | —                | —            | 16                             | 27                  | 92               |
| N.S.....                   | 47  | —                | —            | 14                             | 41                  | 102              |
| N.B.....                   | 43  | —                | 2            | 18                             | 22                  | 85               |
| Que.....                   | 41  | 1                | 3            | 11                             | 38                  | 93               |
| Ont.....                   | 36  | 4                | 12           | 10                             | 37                  | 90               |
| Man.....                   | 46  | 6                | 1            | 17                             | 33                  | 103              |
| Sask.....                  | 55  | —                | 1            | 10                             | 43                  | 109              |
| Alta.....                  | 58  | 1                | 2            | 9                              | 31                  | 102              |
| B.C.....                   | 54  | 3                | 8            | 12                             | 28                  | 105              |
| Yukon and N.W.T...         | 184                                       | —                | 8            | —                              | —                   | 192              |
| <b>Canada.....</b>         | <b>43</b>                                 | <b>2</b>         | <b>3</b>     | <b>11</b>                      | <b>36</b>           | <b>96</b>        |

<sup>1</sup> Federal hospitals not included. <sup>2</sup> Includes 53 sanatoria, 11 federal hospitals for tuberculosis only, 4 units in federal hospitals and 20 units in other hospitals. <sup>3</sup> Includes 2 federal hospitals. <sup>4</sup> Includes 2 units in public hospitals. <sup>5</sup> Three branches of the Provincial Infirmary.

## *★ Welfare Services*

In recent years there has been considerable growth in the extension and co-ordination of municipal, provincial and voluntary welfare services in Canada, as well as notable progress in the development of a nation-wide social security program.

Traditionally and historically, social welfare in Canada developed as a local responsibility, with the municipalities deriving their powers from

the provincial authority. Over the past two or three decades, however, economic and social developments, together with rising standards of public welfare, have thrust into provincial and federal areas of jurisdiction an increasing measure of responsibility. Although the municipalities continue to carry substantial welfare burdens, Provincial Governments have undertaken to provide services for special groups, financial assistance to municipal welfare programs, aid in co-ordinating local services and encouragement of improved standards of service.

With the exception of old age pensions, which were introduced in 1927, the trend towards greater federal responsibility began during the pre-war depression decade in the fields of unemployment relief, agricultural relief and other financial aid to the provinces. A national system of contributory unemployment insurance was introduced in 1940, the national physical fitness grant program in 1943 and family allowances in 1944.

On the administrative side, each province has a permanent public welfare service, either as a separate department or jointly with its Department of Health, to operate provincial services and exercise supervisory authority over welfare programs, both public and private.

### *Federal Welfare Services*

The creation of the Department of National Health and Welfare in 1944 brought into being for the first time a Federal Government service in which matters of welfare are a prime responsibility. The main functions of that Department in the field of welfare are: the promotion of social security and the social welfare of the people of Canada; investigation and research; preparation and distribution of information on social and industrial conditions affecting the lives and health of the people; and co-operation with provincial authorities with a view to co-ordination of efforts in the welfare field. The Welfare Branch administers family allowances, old age pensions and pensions for the blind, and the national physical fitness program. Other welfare services are administered by the Departments of Veterans Affairs, Citizenship and Immigration, Resources and Development, and Labour.

**Family Allowances.**—The Family Allowances Act, 1944, was introduced to provide more equal opportunity for the children of Canada. The allowances are paid monthly to parents (to mothers, except in unusual circumstances) and must be spent exclusively for the maintenance, care, training, education and advancement of the child.

In general, each child under sixteen years of age, including Indians and Eskimos, is eligible for an allowance. Such a child must be registered for the allowance and be maintained by a parent, as defined in the Act. For registration purposes the child under the age of 16 years must reside in Canada and, in addition, must have been born and resident since birth in Canada or have lived in Canada for one year preceding registration. Residence provisions do not apply to children born to parents domiciled in Canada but temporarily out of the country. The allowance is not payable on behalf of a child who fails to attend school as required by the laws of the province in which he resides.

The allowances, which involve no means test and are not considered as income for tax purposes, are paid by cheque at the following rates: children under 6 years of age, \$5; children from 6-9 years of age, \$6; children from 10-12 years of age, \$7; and children from 13-15 years of age, \$8.

Current disbursements under the Family Allowances Act amount to about \$307,000,000 per annum.

### *Family Allowances Statistics, by Provinces, June, 1950*

| Province or Territory                | Families Receiving Allowances | Total Children   | Average Allowance per Family | Average Allowance per Child | Total Allowances Paid, June, 1950 |
|--------------------------------------|-------------------------------|------------------|------------------------------|-----------------------------|-----------------------------------|
|                                      | No.                           | No.              | \$                           | \$                          | \$                                |
| Newfoundland.....                    | 50,905                        | 141,000          | 16.56                        | 5.98                        | 843,000                           |
| Prince Edward Island....             | 13,256                        | 33,915           | 15.39                        | 6.02                        | 204,045                           |
| Nova Scotia.....                     | 91,246                        | 215,090          | 14.21                        | 6.03                        | 1,297,078                         |
| New Brunswick.....                   | 72,703                        | 189,925          | 15.66                        | 6.00                        | 1,138,920                         |
| Quebec.....                          | 512,251                       | 1,366,827        | 16.06                        | 6.02                        | 8,224,887                         |
| Ontario.....                         | 609,279                       | 1,218,872        | 12.01                        | 6.01                        | 7,320,868                         |
| Manitoba.....                        | 106,564                       | 223,350          | 12.60                        | 6.01                        | 1,342,460                         |
| Saskatchewan.....                    | 117,811                       | 262,695          | 13.53                        | 6.07                        | 1,594,306                         |
| Alberta.....                         | 132,480                       | 283,468          | 12.89                        | 6.02                        | 1,708,163                         |
| British Columbia.....                | 157,193                       | 302,580          | 11.48                        | 5.96                        | 1,804,758                         |
| Northwest Territories and Yukon..... | 3,910                         | 8,441            | 13.94                        | 6.46                        | 54,507                            |
| <b>Canada.....</b>                   | <b>1,867,598</b>              | <b>4,246,163</b> | <b>13.67</b>                 | <b>6.01</b>                 | <b>25,532,992</b>                 |

*Immunizing young children in public schools is responsible for the tremendous strides made in recent years in the fight against infectious diseases, particularly diphtheria.*





**Old Age Pensions and Pensions for Blind Persons.**—The Old Age Pensions Act, passed by Parliament in 1927, provided for the payment of non-contributory pensions to persons 70 years of age or over who fulfilled certain requirements as to income, residence and nationality. An amendment to the Act, passed in 1937, provided for pensions for blind persons 40 years of age or over who fulfilled similar requirements.

Several amendments have since been made to the Act, the most important of these being made between 1947 and 1949. At present, the maximum income allowed to old age pensioners, including pension, is \$600 a year in the case of an unmarried pensioner and \$1,080 a year in the case of a married pensioner, with higher amounts for blind pensioners. The qualifying age for old age pensioners remains at 70 years, while that for blind pensioners has been lowered to 21. Residence requirements have been relaxed and the requirement regarding nationality has been eliminated. Within the limits of the Act, each province is free to fix the maximum pension payable and the maximum income allowed but the Federal Government's contribution to any pension is limited to 75 p.c. of \$40 a month. In certain provinces pensions for the aged and the blind are augmented by supplements, paid entirely by the provinces. Implementation of the program in any province is contingent on the province passing enabling legislation and signing an agreement with the Federal Government. Pensions are administered and paid by the provinces, with federal reimbursement through the Department of National Health and Welfare.

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*Braille books and recordings of books are available to all members of the Canadian National Institute for the Blind and are forwarded to all parts of Canada from their library at Toronto.*



## Summary of Old Age Pensions, by Provinces, as at June 30, 1950

| Province or Territory      | Pensioners     | Average Monthly Pension <sup>1</sup> | Pensioners to Population 70 Years of Age or Over | Persons 70 Years of Age or Over to Total Population | Federal Government's Contribution since 1927 |
|----------------------------|----------------|--------------------------------------|--|---|--|
|                            | No.            | \$                                   | p.c.   | p.c.  | \$   |
| Newfoundland.....          | 10,708         | 37.80                                | 80.51  | 3.82  | 3,167,885                                    |
| Prince Edward Island.....  | 3,031          | 34.54                                | 47.36  | 6.81  | 5,086,603                                    |
| Nova Scotia.....           | 20,288         | 35.51                                | 58.98  | 5.33  | 43,644,117                                   |
| New Brunswick.....         | 16,374         | 36.29                                | 72.45  | 4.38  | 33,172,929                                   |
| Quebec.....                | 69,611         | 37.75                                | 52.30  | 3.42  | 147,615,293                                  |
| Ontario.....               | 86,393         | 37.80                                | 36.13  | 5.42  | 230,565,003                                  |
| Manitoba.....              | 17,098         | 38.35                                | 46.34  | 4.74  | 48,353,390                                   |
| Saskatchewan.....          | 16,782         | 37.34                                | 45.48  | 4.29  | 47,037,832                                   |
| Alberta.....               | 16,897         | 37.84                                | 47.73  | 4.06  | 40,454,600                                   |
| British Columbia.....      | 29,706         | 37.14                                | 44.27  | 6.02  | 59,757,810                                   |
| Northwest Territories..... | 21             | 39.68                                | 11.48  | 1.52  | 61,695                                       |
| Yukon.....                 | 108            | 38.64                                | 32.93  | 6.67  | 33,959                                       |
| <b>Canada.....</b>         | <b>287,017</b> | <b>37.44</b>                         | <b>45.87</b>                                     | <b>4.62</b>   | <b>658,951,116</b>                           |

<sup>1</sup>Excluding provincial supplements which are paid entirely by the provinces.

## Summary of Pensions for Blind Persons, by Provinces, as at June 30, 1950

| Province or Territory      | Pensioners    | Average Monthly Pension <sup>1</sup> | Pensioners to Total Population | Federal Government's Contribution since 1937 |
|----------------------------|---------------|--------------------------------------|--------------------------------|--|
|                            | No.           | \$                                   | p.c.                           | \$   |
| Newfoundland.....          | 193           | 38.97                                | 0.055                          | 55,779                                       |
| Prince Edward Island.....  | 128           | 37.88                                | 0.136                          | 268,116                                      |
| Nova Scotia.....           | 980           | 38.37                                | 0.152                          | 1,839,617                                    |
| New Brunswick.....         | 1,053         | 39.08                                | 0.204                          | 2,141,033                                    |
| Quebec.....                | 3,925         | 39.05                                | 0.101                          | 7,257,017                                    |
| Ontario.....               | 2,318         | 38.61                                | 0.053                          | 4,572,347                                    |
| Manitoba.....              | 540           | 39.33                                | 0.069                          | 1,043,865                                    |
| Saskatchewan.....          | 475           | 38.78                                | 0.055                          | 978,350                                      |
| Alberta.....               | 464           | 38.68                                | 0.053                          | 757,325                                      |
| British Columbia.....      | 632           | 38.15                                | 0.057                          | 1,061,033                                    |
| Northwest Territories..... | 1             | 40.00                                | 0.008                          | 1,730  |
| Yukon.....                 | 2             | 40.00                                | 0.041                          | 420  |
| <b>Canada.....</b>         | <b>10,711</b> | <b>38.81</b>                         | <b>0.079</b>                   | <b>19,976,632</b>                            |

<sup>1</sup> Excluding provincial supplements which are paid entirely by the provinces.

**Unemployment Insurance.**—In 1940, by an amendment to the British North America Act, the Federal Government was given complete jurisdiction in the field of unemployment insurance and since that time a national system of unemployment insurance administered by the Unemployment Insurance Commission has been in operation. (*See pp. 228-230.*)

**Physical Fitness.**—A program of fitness and recreation for Canada was introduced with the proclamation on Oct. 1, 1943, of the National Physical Fitness Act. Under that Act, a National Council was established to promote the well-being of the people of Canada through physical fitness and recreational activities. The Council, set up on Feb. 15, 1944, is an advisory body appointed by the Governor General in Council, which meets twice each year

to discuss the over-all program, and to advise the Minister of National Health and Welfare on various aspects of it. In some provinces, provincial fitness councils function on lines comparable to the National Council.

The Act is administered by the Department of National Health and Welfare whose Physical Fitness Division acts as a clearing-house among the provinces for the latest information on fitness, recreation, community centres, physical education, sports and kindred activities.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding \$225,000 annually for the promotion of physical fitness and recreational projects. Special provision has also been made for an additional grant of approximately \$7,000 to be made available for Newfoundland should that Province choose to participate. Financial assistance is given only to those provinces that have signed specific agreements with the Federal Government; they receive their shares to the extent to which they match them dollar for dollar.

| <i>Province</i> | <i>Maximum<br/>Financial<br/>Grant<br/>Available<br/>Annually</i> | <i>Expiry<br/>Date of<br/>Agreement</i> | <i>Province<br/>or<br/>Territory</i> | <i>Maximum<br/>Financial<br/>Grant<br/>Available<br/>Annually</i> | <i>Expiry<br/>Date of<br/>Agreement</i> |
|-----------------|---|---|--------------------------------------|---|---|
|                 | \$  |   |                                      | \$  |   |
| Nfld.(approx.)  | 7,000   | No agreement                            | Man.....                             | 14,270  | Mar. 31, 1951                           |
| P.E.I.....      | 1,859   | Mar. 31, 1951                           | Sask.....                            | 17,521  | Dec. 31, 1953                           |
| N.S.....        | 11,302  | Mar. 31, 1951                           | Alta.....                            | 15,568  | Mar. 31, 1951                           |
| N.B.....        | 8,944   | Mar. 31, 1952                           | B.C.....                             | 15,993  | Mar. 31, 1951                           |
| Que.....        | 65,151  | No agreement                            | N.W.T.....                           | 234   | Mar. 31, 1952                           |
| Ont.....        | 74,063  | Mar. 31, 1951                           | Yukon.....                           | 97  | No agreement                            |

**Welfare of Indians and Eskimos.**—The Indian Affairs Branch of the Department of Citizenship and Immigration is responsible for the welfare of the Indians of Canada. The Branch, in co-operation with the Family Allowances Division of the Department of National Health and Welfare, administers the payment of family allowances to those among the Indians who are paid in kind rather than by cheque.

The Commissioner in Council of the Northwest Territories and the elective Legislative Council of Yukon are responsible for the health and welfare of indigent white and half-breed persons in their respective areas. These authorities act through the Northern Administrations Section of the Department of Resources and Development which, in co-operation with the Family Allowances Division of the Department of National Health and Welfare, supervises the payment of family allowances to the Eskimos of Canada.

**Canadian Government Annuities.**—The Canadian Government Annuities Act was passed in 1908 to authorize the issue of Government Annuities, the purpose being to encourage and aid Canadians to make provision for old age. Any resident of Canada may purchase a Canadian Government annuity up to \$1,200, payable for life only, or for life with a guarantee period of 5, 10, 15 or 20 years, or for the lives of joint annuitants with continuation to the survivor. Immediate annuities may be purchased in a lump sum and are payable immediately. Deferred annuities are usually bought by employed





*Crippled children are examined at a provincial Travelling Health Clinic organized with the assistance of moneys provided under the Crippled Children's Grant—part of the National Health Grant Program.*

persons, are purchased by payment of periodic premiums or a single premium, and are payable on retirement.

Annuities may be purchased under individual contracts or by members of groups under group contracts. A group contract is generally an agreement with an employer to implement a retirement plan approved by the Minister of Labour, the purchase money being, as a rule, derived jointly from the employer contributions and deductions from wages.

On Mar. 31, 1950, annuity income of \$22,747,365 was payable under 51,759 contracts. The number of deferred annuities being purchased by individuals privately was 84,934. The number of group contracts was 846 covering 121,986 registered employees. The balance at credit of the Annuities Fund was \$563,182,111.

Local offices are maintained in 42 centres throughout Canada to advise the public regarding the purchase of Canadian Government Annuities.

**Dependants' and Veterans' Allowances.**—Allowances paid to veterans' dependants and to certain non-pensionable veterans are dealt with under Veterans Affairs, p. 95.

## Provincial Welfare Services

The field of provincial welfare work is a very wide one. It includes homes for the aged and infirm, children's aid societies, reformatories, day nurseries, homes for juvenile delinquents, training schools for mentally defective children, psychiatric services and industrial schools. These are, in some provinces, maintained solely by provincial funds, in others by municipal or joint municipal and provincial funds. The Provincial Governments also supervise institutions operated by cities, counties, districts and religious and benevolent societies, provide mothers' allowances and other social services and, in co-operation with the Federal Government, provide old age pensions and pensions for the blind (*see* pp. 88-89). In some provinces financial assistance is given to certain voluntary organizations engaged in welfare work.

**Mothers' Allowances.**—All provinces provide allowances to certain needy mothers who are widowed or who, for other reasons, are without means of support for themselves and their dependent children. Except in Alberta, where 25 p.c. of the allowance is borne by the municipality, the whole cost is paid from provincial funds. The Acts of the respective provinces stipulate that the applicant must comply with certain eligibility conditions at the time of application.

In all provinces the exact amount granted is determined by the administrative authorities after consideration of the circumstances in each case. The maximum monthly allowance in *Newfoundland* is \$25 for a mother with one child, with \$5 for each additional child and for a disabled father living at home. The family maximum is \$50 monthly, but a supplementary allowance of up to \$20 monthly may be granted if necessary for care and maintenance. In *Prince Edward Island* the maximum monthly allowance is \$25 for a mother and one child and \$50 for a family. *Nova Scotia* has no set maximum for a mother and one child but the family maximum is \$80 per month. In *New Brunswick* the maximum allowance is \$27.50 per month for a mother and one child, and \$7.50 per month for each additional child. An additional \$7.50 per month may be granted for rent provided the monthly amount payable does not exceed \$60. In *Quebec* a mother with one child receives \$35 per month if living in a city or town of 5,000 or more, or \$30 per month if living elsewhere, with an extra \$5 a month for a mother physically unable to work and for a disabled husband living at home. An additional monthly payment of \$1 each is made for the second, third, fourth and fifth child, \$2 each for the sixth and seventh, and \$3 for each subsequent child. In *Ontario* the maximum rate for mother and child is \$50 per month, with \$10 for each additional child and for a disabled husband in the home. A fuel allowance is granted and an additional \$10 per month per beneficiary may also be paid where need is evidenced. *Manitoba* pays a maximum monthly allowance of \$48 for a mother and one child, with additional allowances for subsequent children and a disabled father in the home. The maximum monthly allowance, excluding winter fuel, granted to any family, with or without the father in the home, is \$137. In *Saskatchewan* the maximum yearly allowance payable for a mother and one child is \$300, increasing to \$900 for a mother and ten children; \$10 a month is granted for a disabled husband living at home and supplementary aid may be provided under the Social Assistance Program. *Alberta* pays a maximum of \$45 per month for a mother and child, with the amount rising

to \$110 for a mother and nine children. In *British Columbia* the maximum amount which may be paid is \$50 per month for a mother with one child and \$8·50 for each additional child and for an incapacitated husband in the home; supplementary aid to meet emergency expenses may also be given.

**Workmen's Compensation.**—For accidents occurring in the course of employment, compensation is payable to workers in accordance with the law of each province or, in fatal cases, to their dependants. In all provinces, except Newfoundland, the cost of compensation and medical aid is borne by employers through a collective liability scheme administered by the province. The Newfoundland Workmen's Compensation Act of 1950, providing for a collective liability scheme to replace an individual liability system whereby the employer is liable to pay compensation, has not yet been proclaimed in force.

Monthly pensions at a fixed rate are paid to widows and children; injured workmen receive two-thirds of their earnings (three-quarters in Saskatchewan and Ontario) during total disablement, but the maximum amount of earnings taken into account is \$2,500 in Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba, Alberta and British Columbia and \$3,000 in Saskatchewan and Ontario. Under the Newfoundland statute, benefits will be fixed by regulation.

### *Other Welfare Services*

There are in existence many voluntary organizations whose efforts are directed to social welfare. The Canadian Welfare Council, a national association of public and private agencies, provides a means of co-operative planning and action by serving as a link between voluntary agencies and between public and voluntary agencies. Specialized organizations, such as the Canadian National Institute for the Blind, which functions in every field of welfare for the blind, and the Canadian Council of the Blind, occupy somewhat similar roles in their particular fields. The various Community Chest organizations and service clubs assist welfare work by helping to finance local organizations, and the work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations in what may be described as preventive rather than curative services cannot be overlooked. Day nurseries prove invaluable to many mothers who are obliged to work. Most of the activities of these organizations are not susceptible to statistical measurement. The Canadian Red Cross, the Victorian Order of Nurses, and the Order of St. John also perform many welfare services, though they are more properly designated as public health organizations.

### *★Veterans Affairs*

In Canada legislation concerning veterans of all wars in which Canada has participated is administered by the Department of Veterans Affairs or by independent bodies such as the Canadian Pension Commission, attached to the Department. This legislation covers a wide variety of subjects, from pensions to treatment, land settlement to training, and embraces as well certain types of social service work and welfare legislation.



The administration of the Department is decentralized which permits of rapid decision on all applications. To provide this service for veterans, district offices and sub-offices have been set up in key cities across the country from St. John's, Nfld., to Victoria, B.C. An office is also maintained at London, England, to provide service to Canadian veterans in the British Isles and on the Continent.

With Canada's veteran population from all wars estimated at approximately 1,300,000, the work of the Department touches directly on a large percentage of the Canadian people. Immediately following the Second World War, a great deal of the Department's activities was directly concerned with legislation designed to assist veterans of that War in their re-establishment in civilian life. Much of the work in connection with this rehabilitation legislation has been accomplished although substantial numbers of veterans are still completing university education, land settlement is still being carried out, and re-establishment credit is still being paid at the rate of about \$1,500,000 monthly.

Thus the activities of the Department have largely settled down into what will remain the permanent pattern, and may be included under the headings of Medical Treatment, War Disability Pensions, War Veterans' Allowance, Land Settlement, Welfare Services, and Veterans' Insurance.

**Medical Treatment.**—The majority of veterans requiring treatment are now admitted to D.V.A. hospitals under three major headings: those in receipt of a war disability pension with treatment provided for their pensioned disability, without cost, as of right; those who have seen service in a theatre of actual war, to recipients of War Veterans' Allowance, and to disability pensioners for any condition, if they are not able to pay for it themselves; and veterans who either because of age or physical condition require domiciliary care.

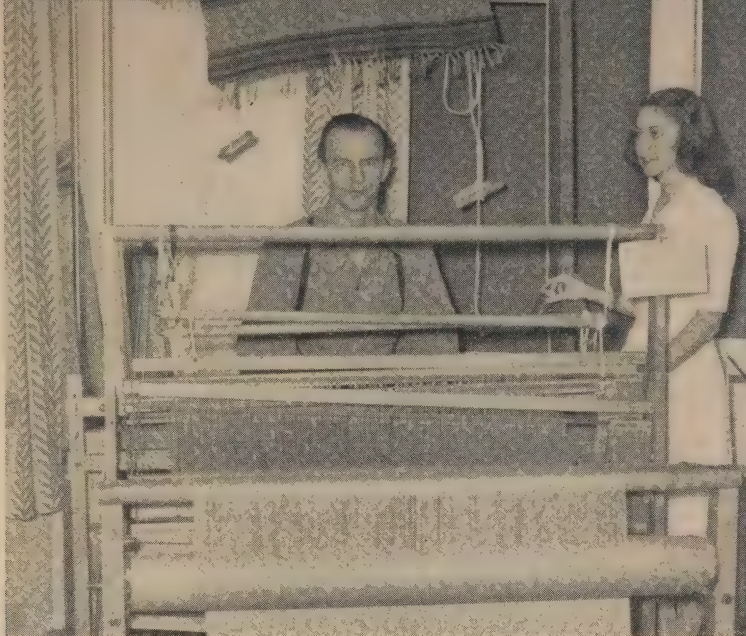
The Department, to provide this treatment, maintains its own hospitals in major centres across Canada. Close liaison is maintained with Canada's medical schools, and the majority of Department of Veterans Affairs hospitals are considered by these medical schools as teaching hospitals. The annual peak load of patients is about 10,000 and, in addition, a large number of out-patient treatments are given.

The Treatment Services of the Department also are responsible for a widespread program of medical research. Clinical investigation units have been set up in a number of the Department's hospitals, and in these units a great deal is being learned about the new drugs and hormones, and new techniques in treatment. During 1950, for instance, the Department of Veterans Affairs was one of the leaders in development of treatment with the hormones Cortisone and ACTH.

**War Disability Pensions.**—The Canadian Pension Commission now issues about 200,000 pension cheques each month, and the present annual liability is \$100,000,000. Over 91 p.c. of that amount is payable in Canada, and the balance to pensioners residing in all parts of the world. There are approximately 83,000 First World War pensioners and 113,000 as a result of the Second World War.

Pension is compensation for disability or death incurred on or attributable to war service, and additional pension is paid for eligible dependants.

*Rehabilitation of disabled veterans to the best possible physical, mental, social and economic condition continues at DVA Health and Occupational Centres. Work on the loom is a valuable aid in strengthening weakened muscles.*



A member of the Forces who is totally disabled on account of disability incurred on service receives a 100 p.c. pension. This, for all ranks of Captain (military or equivalent) and below, amounts to \$91 monthly. If married, he receives \$34 per month for his wife, \$19 for the first child, \$15 for the second and \$12 for each subsequent child. A pensionable widow receives \$75 per month, with the same allowances as already quoted for each dependent child. Pensions are assessed from 5 p.c. to 100 p.c., and a pensioner assessed 10 p.c. receives exactly 10 p.c. of the amounts given.

Pensions to orphan children of eligible cases is double the children's rates as quoted above. Pension is also awarded to a parent or parents on behalf of a deceased member of the Forces whose death was attributable to service provided they are in a dependent condition and were dependent upon the deceased at the time of death, or would have been wholly, or to a substantial extent, maintained by him had he not died.

There is a provision in the Pension Act whereby a pensioner who is totally disabled and helpless and is, in addition, in need of attendance may receive what is known as a Helplessness Allowance. His pension rate may be 5 p.c. and the helplessness result from a non-pensionable condition. This allowance varies from a minimum of \$480 per annum to \$1,400 per annum depending upon the degree of attendance required.

The Commission also administers the Civilian War Pensions and Allowances Act, which makes provision for a number of groups who were specially engaged during the Second World War.

**War Veterans' Allowance.**—This allowance provides assistance to veterans with service in a theatre of actual war when they reach the age of 60 or earlier if their physical condition prevents them earning their own living. The allowance may also be paid to the widows of veterans who would

themselves have been qualified, but in the case of widows it is payable at the age of 55, or earlier if their physical condition makes the allowance necessary. The allowance is not paid as of right, and is subject to certain financial tests. These permit the veteran to have an equity valued at \$4,000 in a home, and certain regular income. The full allowance for a single man is a maximum of \$485 annually, and for a veteran and his wife a maximum of \$850 annually. Reductions are made for regular income above \$250 for a married man, and \$125 for a veteran without dependants. Until 1950 the allowance was payable only to those who served with the Canadian Forces in a theatre of war or on Active Service with the Canadian Forces in the two World Wars, or who were domiciled in Canada at the time of enlistment in other Forces. In 1950, however, an amendment was passed by Parliament making it available to veterans of other of His Majesty's Forces or Allied Forces after 20 years residence in Canada.

Complete medical and dental treatment by the Department without cost is also available. Maximum rates may be supplemented by \$180 a year in the case of a married veteran, and \$120 a year for a veteran who is single, in cases of special need.

**Land Settlement.**—Under the Veterans' Land Act, provision is made to assist veterans of the Second World War in three types of land settlement. The first is settlement in full-time farming for those qualified as full-time farmers. The second is a small-holding type of settlement for those who derive their principal income from some other regular source. The third is settlement on an acreage which the veteran operates in connection with a commercial fishing venture. The veteran may be financed up to a maximum of \$6,000 to cover land and permanent improvements and essential stock and equipment. He may receive a grant, after ten years, of  $23\frac{1}{3}$  p.c. of the cost of his land and buildings, and the total amount made available for stock and equipment.

This portion of the rehabilitation legislation has proven most popular with veterans; more than 40,000 have been settled and very active settlement operations are still being carried on. During 1949 and 1950, because of advancing building costs, the Veterans' Land Act Administration embarked on a program of home-building courses. During the building season of 1950, several thousand veterans began construction of their own homes, providing much of the labour themselves.

The Veterans' Land Act Administration maintains a staff of trained agriculturists and horticulturists who are constantly in the field advising on improved techniques. The Division also administers the Soldier Settlement Act, which applies to veterans of the First World War.

**Welfare Services.**—The Welfare Services Branch of the Department administers those portions of the rehabilitation legislation still available, such as Training, Awaiting Returns Allowances, and Re-establishment Credits, and in the welfare field looks after the War Veterans' Allowance Assistance Fund, awards under the War Veterans' Allowance Act in the applicant's own district, and the employment problems of those veterans with physical disabilities or who have difficulty in getting employment because of advancing age. Close liaison with all social-service agencies is maintained, and a great deal of assistance is provided in this way.





*Camp Hill Military Hospital, Halifax, N.S. This is the largest of the 28 National Defence Hospitals located across the country.*

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**Veterans Insurance.**—When the Veterans' Insurance Act was placed on the statute books, special consideration was given to those ex-service men and ex-service women who, as a result of their war service, might be unable, physically, to qualify for ordinary commercial insurance. This was done by making it unnecessary, except in a very few special cases, for the veteran to undergo medical examination. Policies valued at more than \$80,000,000 had been issued by the end of 1950. Insurance is available in multiples of \$500 to a maximum of \$10,000 with several options from ten payment life to life paid up at age eighty-five. The right to apply ends within six years of discharge, or Feb. 20, 1945, whichever date is later, although there was some discussion by Parliament during 1950 on extending this period.

**The Veterans' Business and Professional Loans Act.**—This Act enables veterans to obtain loans through the chartered banks up to a maximum of \$3,000 at not more than 5 p.c. interest for business or professional purposes. The amount of the loan may not exceed two-thirds of the total amount to be invested in the business. The banks follow normal lending practices, but the Government guarantees each individual bank at the rate of 25 p.c. on any loss incurred on the first million dollars lent, and 15 p.c. on loans in excess of the first million dollars. The total amount of loans by all banks to which such guarantee extends is \$25,000,000.



*Begowned graduates of the University of Toronto proceed through the gothic-arched door of University College to Convocation Hall.*

# Education Scientific Research

## ★ *Education*

CANADA'S constitution assigns public education, except for that of the native Indians, to the jurisdiction of each of the ten provinces. While each system varies from the others in particulars, the general plan is the same for all except Quebec where there are two systems, the Roman Catholic which has developed in the French tradition, and the Protestant which is of the English tradition of the other nine provinces. The public school systems of Ontario, Saskatchewan and Alberta include separate schools, mostly Roman Catholic. In Newfoundland the schools are denominational—Anglican, Roman Catholic, United Church, Salvation Army and Seventh Day Adventist, with a few non-denominational.

In each province, except Quebec, education is administered by a separate department of government headed by a Minister of Education who, as a member of the Ministry, is responsible to the Legislative Assembly and to the people. In Quebec education comes under the jurisdiction of the Provincial Secretary. The Minister, through his department, is responsible for the administration and enforcement of all statutes and regulations concerned with the schools, including training and licensing of teachers, provision of courses of study, authorization of textbooks, enforcement of attendance laws and the apportionment of provincial grants to schools. Local administration is in the hands of school boards elected by the ratepayers or, in some cases, appointed by the local municipal council. The local boards hire the teachers and operate the elementary and secondary schools.

Practically all the necessary funds for elementary and secondary education come from direct local taxation on real estate and from provincial grants. The Federal Government, through the provinces, contributes towards the cost of scholarships, research, youth-training and vocational education including apprenticeship and technical training.

The provincial governments operate schools for the blind and the deaf, normal schools for the training of teachers and such special schools as schools of art and schools of agriculture.

**Elementary and Secondary Education.**—In the systems of the English tradition the elementary school includes the first eight grades. Children commonly begin at age six or seven and complete the elementary grades at ages 13 to 15. Subjects of study include reading, arithmetic, writing, social studies and health, together with arts and crafts, home economics, music, etc.

The secondary school course extends over four years, from grades IX to XII (five years to grade XIII in British Columbia and Ontario). High-school graduation or junior matriculation is at the end of grade XI or XII.



Grade XII (or XIII) is equivalent to first year university, but standing in at least some subjects of this grade is required for entrance to some universities. In some provinces grades VII to IX are designated intermediate or junior high and given a broadened curriculum.

A pupil entering secondary school may follow an academic course, usually composed of English, mathematics, science and a foreign language, leading to the university, the normal school or nurses' training school, or he may take an industrial, commercial or agriculture course leading to a relative occupation.

Under the Catholic system of Quebec the first seven grades comprise the primary division. From there a boy may enter a classical college for an eight-year course leading to university, or pass through any one of five sections of the complementary and superior divisions—general, scientific, industrial, commercial, agricultural. The first three are five-year courses, the others less. The scientific and commercial courses lead to the professional schools and the general courses to the normal schools; the other courses are terminal.

At the end of the primary division a girl has the choice of four sections: (1) a general (five-year course leading to normal school); (2) a three-year household science course; (3) a four-year commercial course; or (4) a two-year domestic arts course; or she may enter a classical college leading to university.

As in any active system, changes and developments of interest and importance are continually taking place. Heavy construction programs are in progress in most of the provinces. New elementary schools are replacing obsolete buildings and additional schools are being provided to take care of the extra enrolments which are expected to increase annually for another ten years at least. New secondary schools are being built to extend facilities in rural areas, to make greater provision for technical education and also, in the suburban areas of the larger centres, to accommodate increased enrolments.

While some revision is being made in the curricula of elementary grades, the more important changes affect the secondary-school courses. Essentially, the revisions are attempts to meet more fully the needs of students who must attend to age 16 but have no interest in furthering their education, and to provide for those who wish to train for commerce or industry. The academic courses leading to university or normal school are being broadened: British Columbia has introduced units on health, guidance, mental hygiene, home and family living; New Brunswick has dropped Greek from the high-school course and made Latin an optional subject, at the same time introducing a course in economics and social problems in Grade XII. There is also an increasing emphasis on technical courses—home economics, agriculture, commercial and industrial. In the latter field it is not unusual to find the courses varying with the requirements of the locality in which the school is situated.

Technical institutes are now in operation in seven provinces and in Quebec similar training is given in other schools. These are mainly trade schools giving courses of from six months to seven years duration. Particularly in Ontario and Quebec, some trade schools are limited to the training of technicians for particular industries such as textiles and mining. Other schools, while giving some journeyman training, also provide technical training requiring high-school graduation as well as training for teachers of industrial arts. A ship training school for the merchant marine, the first in Canada, has been established at Rimouski, Que.

*Botany period in a modern public school.*



Increased provision for the education of handicapped children is being made in all provinces. Additional accommodation is being furnished for sight-saving, hard-of-hearing and opportunity classes, and a number of schools have been built for the more seriously handicapped. Of particular interest is an Ontario residential school for crippled boys of 14 to 18 years of age, called Variety Village after the service club that paid for its construction and operation. It accommodates 40 boys in residence and a number of day pupils. Academic subjects, business training, industrial arts and crafts, horology, and physical education are taught and medical care is supervised by a committee of medical specialists. Instruction, which is tutorial, is free.

Recent legislation in Alberta provides for an experiment in school administration new to Canada—in place of the local school board, an elected county council, with jurisdiction over not more than four grouped counties, will be responsible for educational administration as well as municipal and hospital administration.

The supply of teachers for elementary and secondary grades appears to be more nearly approaching the demand. Enrolments in provincial normal schools are increasing and during 1948 and 1949 the numbers of untrained and partially trained teachers decreased in most provinces. Two provinces dropped short courses and one increased the minimum requirement for a certificate from one to two years beyond matriculation. Salaries continued to rise, the total salary bill increasing about 10 p.c. each year. At the same time, several provinces have recently improved pension schemes for teachers.

As the expenditures of school boards have increased so, too, has the proportion borne by the provincial governments. Figures for 1948 show that

provincial government grants to school boards made up 38 p.c. of the boards' revenues. If to this be added the administrative and other costs borne by the provinces, it is found that they provided 43 p.c. of the cost of elementary and secondary education. Altogether, including private and Indian schools, the cost of this level of education was \$285,000,000 in 1948, of which the Federal Government provided \$8,000,000.

**Indian Education.**—The Indian Affairs Branch, Department of Citizenship and Immigration, which operates day and residential schools for Indians throughout Canada, reported a continuation of the trend towards higher education during the academic year 1949-50. This factor, together with increased attendance in the secondary school grades and at universities, reflects the progress being made in the whole field of Indian education.

In the 1949-50 school year there were 834 Indian pupils attending classes above Grade VIII, compared with 661 in the 1948-49 school year which, in turn, was considerably above the number in the previous year. This splendid record resulted from the provision of additional classrooms and improved teaching methods and also from the fact that Indian youth is taking greater interest in his own education.

The total enrolment at Indian residential and day schools in 1949-50 was 23,409. While enrolment at residential schools was slightly lower than in the previous year, the increase in day-school enrolment was 1,478. It is of interest to note that since 1947 there has been an increase in day-school enrolment of 3,775 pupils.

Thus, taking into account the 1,645 Indian children attending provincial and private schools, there was in 1949-50 a total of 25,054 Indian children attending educational classes.

The day-school construction program, the effects of which were reflected in the increased enrolment, continued during the year. Particular attention was given to the northern sections of the provinces and to the Northwest Territories, materially reducing the number of Indian children for whom no education facilities were previously available.

**Higher Education.**—Full-time enrolment of undergraduates in Canadian universities and colleges in the academic year 1951 was about 72,000, a 10 p.c. decrease from the previous biennium. More than one-half of the 1951 enrolment was concentrated in the expensive professional courses and in graduate work. Also a large percentage of the enrolment in Arts faculties was in courses preparatory to entrance into the more expensive faculties.

The pattern of university finance in Canada for the past 25 years has been one of deficit financing. The amount of private income has decreased in recent years and State aid has not advanced in proportion to the increased cost of instruction. Exclusive of aid to students, total State aid represents about 42 p.c. of current expenditure.

State financial aid may come from three sources—the Provincial Government, the Federal Government and the municipality. Provincial grants to universities may be of one of three types: complete support of provincially controlled universities and colleges that usually are unendowed; substantial annual grants to endowed universities nominally provincial but under control of an independent Board of Governors; or grants-in-aid to private institutions that may be under denominational control or non-secular control. The latter type of aid is usually restricted to certain schools, faculties or colleges within



the university organization and to special research projects undertaken by the university. During the past 25 years provincial aid increased from \$5,000,000 to \$13,000,000; current expenditures increased in the same period from \$10,000,000 to \$40,000,000.

For some years the Federal Government has given informal financial assistance to university education through grants in aid of specific research projects national in scope; scholarships and bursaries to students for special training in courses of national welfare; and assistance to the extension work of universities. The departments responsible for most of these grants include Agriculture, Fisheries, Labour, National Defence, National Health and Welfare, Trade and Commerce, Transport, the National Research Council and the Department of Veterans Affairs. Exclusive of the last-named department some \$3,000,000 are expended on higher education annually by the Federal Government. In addition the Department of National Defence expends about \$1,150,000 for the total support of the Defence Colleges of Canada. The Department of Veterans Affairs expended \$24,782,000 on the university training of veterans in 1948-49, including \$3,000,000 in supplementary grants to universities.

Municipal grants are received by four universities and three colleges, amounting in all to about \$170,000. In most cases they are for specific projects and the amounts are insignificant in relation to the total expenditures of the institutions.

Westglen High  
School, Edmonton,  
Alta.



**Adult Education.**—In most countries throughout the world, a great interest has been shown in adult education since the end of the War. In Canada adult education operates under a highly complicated organization and involves the efforts of thousands of voluntary groups and associations, school participation at all levels and considerable government effort. While interest is focussed on academic, recreational or welfare courses, there are also classes conducted for illiterates, and other classes directed toward English and Citizenship for new immigrants to Canada.

Federal Government services include films and broadcasts from the National Film Board and the Canadian Broadcasting Corporation, art displays and prints from the National Gallery, classes and correspondence courses for adults in various institutions, and pamphlets and books on a wide variety of subjects.



*Modern farming requires not only practical skill but technical and scientific knowledge as well. Training for practical farming and for other agricultural occupations is provided in almost every province.*

*At the Ontario Agricultural College, Guelph, all branches of agriculture and home economics are studied. The extensive laboratories and lecture rooms of the Chemistry Building are used for training students in fundamental and applied chemistry.*



*A laboratory class in bacteriology.*

While the services provided by the provincial governments differ to a considerable degree in type of organization and courses offered, there are points of similarity. The Departments of Agriculture usually carry on extensive programs of education for farm people. Departments of Health and Welfare, often in co-operation with Departments of Education, provide physical fitness classes and organize recreation groups. Five of the Departments of Education have special divisions for adult education.

Activities and services are provided by university extension services; school board programs; correspondence study; community programs directed from the Department or through voluntary local groups; or programs carried on by private organizations or societies. Most technical schools offer evening courses; in fact some of them began as night schools and still have night enrolments exceeding the number enrolled in their day classes. In several provinces, government grants amounting to about half the cost of construction are provided for buildings which are suitable for community centres, or where a community program is undertaken. Grants are also available for teachers and equipment for night schools.

### Summary Statistics of Education, Academic Year 1947-48

(Exclusive of Newfoundland)

| Type of School or Course                                  | Institu-<br>tions | Pupils             | Teachers      | Expendi-<br>tures   |
|---|-------------------|--------------------|---------------|---------------------|
|   | No.               | No.                | No.           | \$'000              |
| Provincially Controlled Schools—                          |                   |                    |               |                     |
| Ordinary and technical day schools.....                   | 31,393            | 2,091,929          | 77,240        | 250,452             |
| Evening schools.....                                      | ..                | 113,647            | ..            | 786 <sup>2</sup>    |
| Correspondence courses.....                               | 9 <sup>1</sup>    | 27,959             | ..            | 833                 |
| Special schools.....                                      | 12                | 2,453 <sup>3</sup> | ..            | 3,618               |
| Normal Schools—   |                   |                    |               |                     |
| Full-time.....  | 109               | 9,402              | 1,046         | 3,132               |
| Accelerated course.....                                   | ..                | 1,425              | ..            | ..                  |
| Privately Controlled Schools—                             |                   |                    |               |                     |
| Ordinary academic schools.....                            | 783               | 98,103             | 5,741         | 12,746 <sup>4</sup> |
| Business Training Schools—                                |                   |                    |               |                     |
| Day.....  | 255               | 23,023             | 1,078         | 2,365 <sup>4</sup>  |
| Evening.....  | ..                | 20,321             | ..            | ..                  |
| Indian schools and education in the Terri-<br>tories..... | 376               | 20,101             | 708           | 3,691 <sup>5</sup>  |
| Universities and Colleges—                                |                   |                    |               |                     |
| Preparatory courses.....                                  | 36                | 27,993             | 1,800         | ..                  |
| Courses of university standard.....                       | 165               | 113,810            | 8,439         | 43,607              |
| Other courses.....  | ..                | 26,012             | ..            | ..                  |
| Expenditures Not Included Above—                          |                   |                    |               |                     |
| Provincial Government.....                                | ..                | ..                 | ..            | 33,237 <sup>6</sup> |
| Federal Government.....                                   | ..                | ..                 | ..            | 17,587 <sup>7</sup> |
| <b>Totals.....</b>  | <b>33,129</b>     | <b>2,576,178</b>   | <b>96,052</b> | <b>372,054</b>      |

<sup>1</sup> Not included in total; evening classes are conducted in day schools and correspondence courses by provincial Departments of Education. <sup>2</sup> British Columbia and Ontario only; included with day schools in other provinces. <sup>3</sup> Enrolment in schools for blind and deaf only.

<sup>4</sup> Includes estimates of \$6,200,000 and \$800,000, respectively, for Quebec. <sup>5</sup> Fiscal year ended Mar. 31, 1948. <sup>6</sup> Total gross expenditure by provincial governments was \$146,800,000, including grants to school boards amounting to \$91,714,000 of which \$3,601,000 was provided by the Federal Government. <sup>7</sup> Total expenditure on education by the Federal Government was \$36,695,000, of which \$24,737,000 was spent on the education of veterans.



## ★ Scientific Research

While scientific research is carried on by many different agencies in Canada, there is a close co-ordination of effort which not only results in measurable economies being effected, but ensures that no important fields of activity are overlooked. Scientists are seekers after truth, and nothing is more to their liking than full and free discussion of difficult research problems by all those able to make useful contributions on the different subjects.

Opportunities to this end are afforded through meetings of scientific and engineering societies and various specialist gatherings convened to consider highly technical subjects. Continuity of effort in this direction is often secured through the appointment of committees by such organizations as the National Research Council, the Defence Research Board, and the Fisheries Research Board, to name only three.

At all these meetings the numerous scientific interests of Canada are usually well represented, and when decisions are taken the members are able to carry back the recommendations to their respective organizations and institutions. Included in this category are the research establishments maintained by the larger industrial companies at widely separated centres; research foundations and councils in most of the provinces; graduate research centres at the universities; a large and important group of consultants in the science and engineering fields; and publishing houses that produce technical journals and sponsor the publication of scientific books.

Since the beginning of the twentieth century there has been a remarkable change in the relationship of the farmer and the scientist. The scientist has taken his critical methods to the fields; the farmer has brought his problems to the laboratory. To apply the laws of science to the practices of agriculture is the function of the research and experimental services of the Federal Department of Agriculture. Highly trained specialists are continuously at work carrying research projects through various stages of analysis in the laboratory, and through testing under controlled conditions in stable, greenhouse, and experimental plot. Finally the products of their research are tested under practical farming conditions throughout the area concerned.

Various types of scientific and industrial research are carried out by the Department of Mines and Technical Surveys, and by the Department of Resources and Development. Their research facilities are designed to promote the more efficient development of and utilization by industry of the products of forest and mine. Resources and occurrences of Canadian minerals are studied, as well as further treatment and recovery of the industrial minerals. Research in anthropology, forest protection and management, geological investigations, mapping, problems in wildlife studies, and astronomical and meteorological subjects are all of interest to one or more branches of these Departments. Similarly the fisheries, both inland and coastal, are under continual study by the Fisheries Research Board and the Department of Fisheries.

Health problems involve many and varied research studies, and in this field Canada holds a high position.

An Advisory Panel on Scientific Policy, consisting of senior research officials, keeps in close touch with all research activities carried on under the auspices of the Government of Canada. Each of these agencies, in turn,

## THE VALUE OF RESEARCH TO INDUSTRY



Within quite recent times Canada has appeared on the world horizon as an industrial nation with notable potentialities. Many factors are responsible—two world wars, her Commonwealth status, her neighbourly relations with the richest nation in the world with whom there has always been a buoyant trade, and the initiative and inventiveness of her own people.

It is not so long ago that one heard the lament that Canada's natural resources were being rapidly depleted with little benefit to the nation—that they should not be traded in their primary forms but should be made the basis of secondary or manufacturing industries at home. The past few decades have brought about a tremendous change. Industry is proving that it is thoroughly alive to the situation and able to meet it efficiently. To-day all branches of the primary industries—leading mining companies, the larger operators in the lumber industry, most units in the pulp and paper group, the brewing industry—compete with one another to engage the best scientific skills and discover ways of utilizing the by-products from primary mine, forest and agricultural operations that were formerly wasted.

Of course, a minimum point of development must be reached by a national economy before such advances are possible. Canadian mines, for instance, had to develop to the refining stage and to do this had to build up markets for the refined metals, such as nickel, copper, lead, zinc, etc., before by-products could be utilized. Also, beyond her borders, markets had to be explored for the secondary products, once produced.

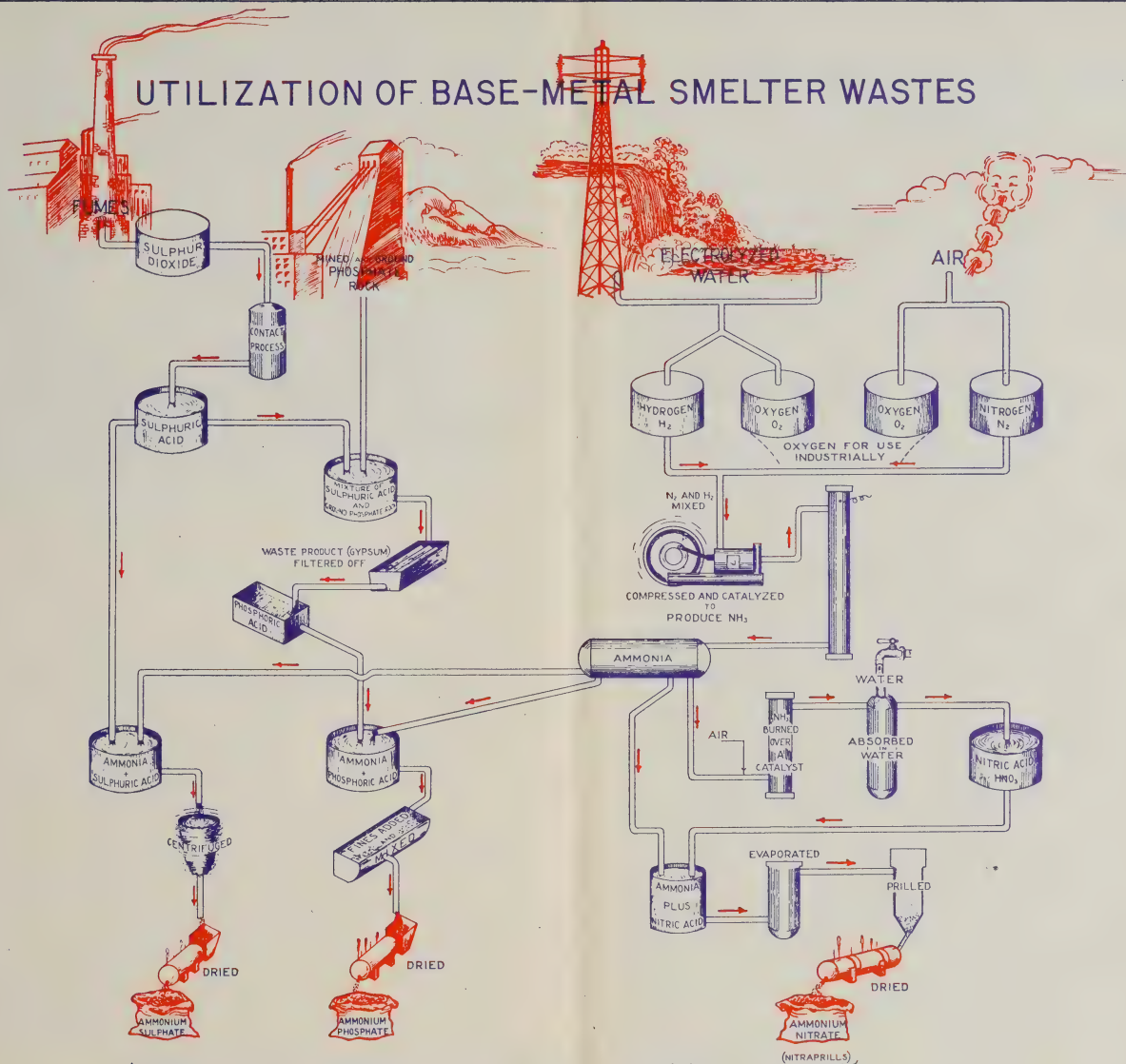
The diagram on the opposite fold is typical of the complex operations that have been built up around the large base-metal mining industry of British Columbia. The by-products produced from these particular operations are the basis of a large and growing chemical fertilizer industry.

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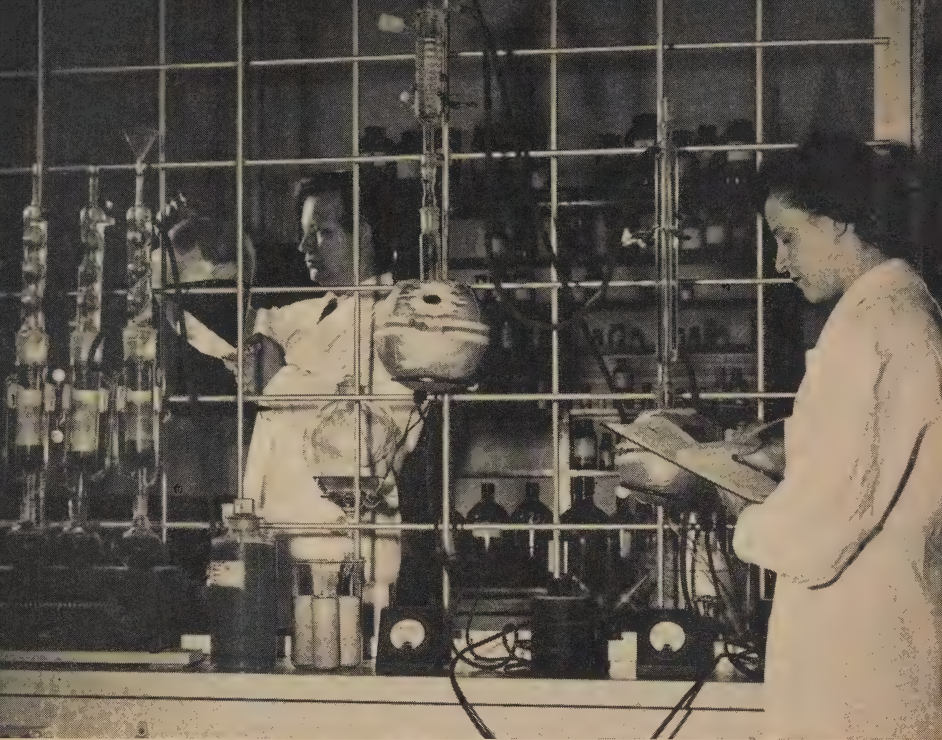


# UTILIZATION OF BASE-METAL SMELTER WASTES



END PRODUCT—HIGH ANALYSIS CHEMICAL FERTILIZERS





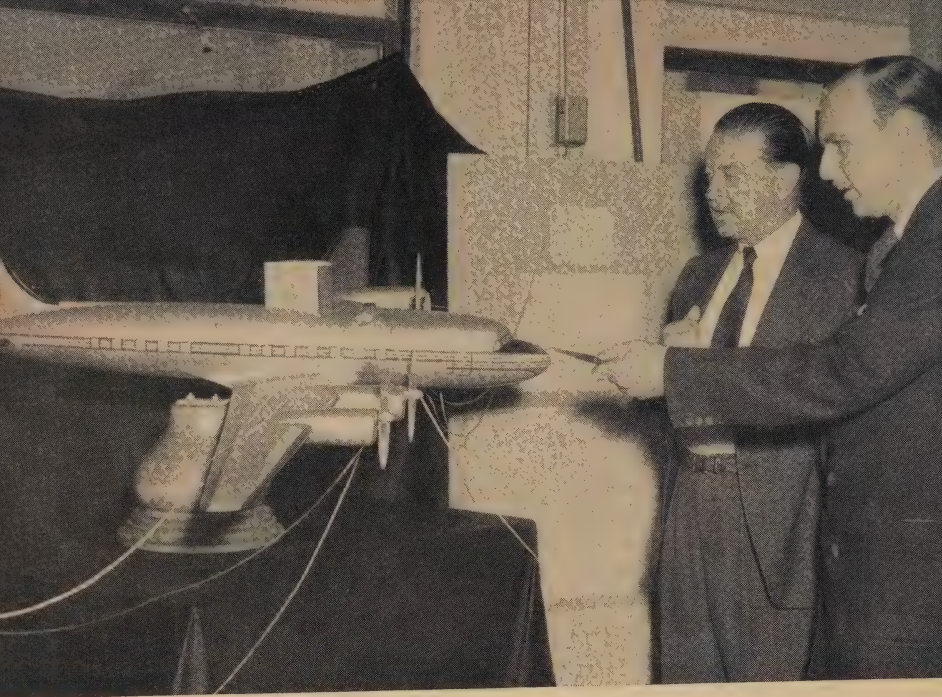
*Food and Drug Laboratory technicians of the Department of National Health and Welfare keep careful check on narcotics as well as on other types of drugs. Here laboratory workers perform an extraction of the active principles of marihuana.*

maintains working relations with provincial and other research institutions and the machinery of scientific and industrial research throughout Canada is thus integrated into a smoothly working mechanism of high efficiency.

**National Research Council.**—The National Research Council consists of the President, two Vice-Presidents (Scientific), one Vice-President (Administration) and seventeen other members, each of the latter group being appointed for a term of three years and chosen to represent industry, labour or research in one of the basic natural sciences. Many of the members are drawn from the science departments of Canadian universities.

The Council at Ottawa is organized with three Science Divisions—applied biology, chemistry and physics—and three other Divisions dealing with engineering problems—building research, radio and electrical engineering, and mechanical engineering which includes aeronautics and hydraulics. The Medical Research Division supports and correlates research on approved projects in the medical schools of Canadian universities, and awards fellowships for post-graduate training in medical research. The Division of Information Services operates the library, the technical information service for small industrialists, and publishes the *Canadian Journal of Research*. Liaison offices at Washington and at London co-operate fully with Ottawa in the exchange of scientific information and in arranging for visits, etc.





*Features of a model of the "Rockcliffe Ice Wagon" being explained to His Excellency Viscount Alexander of Tunis, Governor General of Canada, during "Open House" at the Montreal Road Laboratories of the National Research Council. This R.C.A.F. North Star aircraft has been specially outfitted to test, under actual conditions, the experimental anti-icing and de-icing equipment developed at the Laboratories.*

The Council operates the great atomic energy project at Chalk River, Ont. A Prairie Regional Laboratory at Saskatoon, Sask., serves the agriculturists of Western Canada in the study of problems relating to utilization of farm wastes and the industrial use of agricultural products. A Maritime Regional Laboratory is under construction at Halifax, N.S., for the dual purpose of providing a graduate research centre for the six colleges in that area and also to undertake investigations of industrial interest relating to the development and processing of the natural resources occurring on the eastern seaboard.

The staff of the Council numbers about 3,100, including more than 100 students employed during summer vacation periods.

Scholarships are awarded annually by the National Research Council for training in post-graduate research, and grants-in-aid are made to individuals or institutions for the employment of assistants on research projects and for the purchase or construction of unusual apparatus. To October, 1950, some 1,600 students have had their training advanced through such scholarships, and more than \$5,000,000 has been awarded under grants-in-aid.

Activities of the Council cover a broad field. With the entry of Newfoundland into Canada, the National Research Council expanded its operations to include the new province. The Technical Information Service representative visited most of the secondary industries in Newfoundland in the late summer of 1949 and in co-operation with the Provincial Government and

the Industrial Development Board completed arrangements whereby TIS will serve Newfoundland industries in the same efficient way as it assists other Canadian industries.

In applied biology, scientific studies are leading to improved industrial procedures in the preparation of food products for overseas markets and in the prevention of spoilage of foodstuffs during refrigerated transport by rail and truck. Advances have been reported on methods of preparing pure, undenatured wheat gluten by spray drying, and useful contributions are being made in the preparation, packaging, storage and transport of foodstuffs.

At the Prairie Regional Laboratory at Saskatoon, research on utilization of farm surpluses and wastes is now fully organized.

In chemistry and physics, the importance of doing fundamental research as well as applied work has been recognized. The plan of recruiting post-doctorate fellows from universities in other countries, as well as from Canada, is working well. These scientists, all of whom have gained their Ph.D. degrees and have had some post-doctorate research experience, are working in the laboratories of the National Research Council side by side with Canadian scientists and are bringing to their respective tasks fresh points of view that are very stimulating and helpful.

In applied chemistry, two main avenues of work are being followed. Advice is given to government departments and the Canadian Government Specifications Board on questions relating to supply and testing of chemicals, production of chemicals from domestic sources, and the use of new chemicals

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*The Canadian heavy-water pile at the National Research Council's Atomic Energy Plant at Chalk River, Ont. This atomic furnace has the highest flux density of neutrons of any known reactor. Concentrated beams of neutrons are guided from the reactor to the mass of experimental equipment literally "piled up" around the face of the furnace.*





to meet domestic requirements. The other field of activity relates to research and development projects that are important to the Canadian economy.

The Division of Physics, too, is developing a broad program, including both pure and applied physics. Certain problems in the pure field have been selected for study because of their importance from an academic point of view. On the other hand, choice of applied problems is usually based on requirements of Canadian industrial groups. Of special interest, because of development during the year, is the work on spectroscopy and on cosmic rays. Valuable contributions have been made to aerial photography through the development of special emulsions, and to surveying by means of Shoran equipment. Industrial radiography has been improved and made less expensive through the application of 'cobalt 60' to the structural testing of metals. Work on acoustics, heat, electricity, photometry, metrology and radiation is going forward steadily.

Close association with the Central Mortgage and Housing Corporation is being maintained in all building research activities; more than half of the time of the research workers in the Division of Building Research is being spent on problems received from the Corporation. One result of this association is that the Division, which serves the Corporation as a research wing, is kept fully informed of current building requirements and thus frames and pursues its program on very practical lines.

In aeronautics, the Division of Mechanical Engineering provides the Canadian aviation industry, both constructors and operators, with research, development and testing facilities, and functions as the research organization of the Royal Canadian Air Force.

A similar service is rendered to the shipbuilding industry through the operation of the model-testing basin, where facilities are available for studying the operating characteristics of ships, as revealed by work on scale models. Use of self-propelled models has recently been initiated and, as a result, much useful information is being obtained.

The trend towards adoption of jet engines in aircraft made it necessary to reorganize the engine laboratory and this has been done. Work on turbine icing, an important problem in the operation of jet aircraft, is being pushed forward rapidly and with good success. In the low-temperature laboratories and at the Flight Research Station at Arnprior, Ont., work is proceeding on artificial precipitation, or rain-making, in co-operation with the Meteorological Service. Co-operation with industry is reflected also in the work of the structures laboratory where tests are in progress on Canada's newest jet transport aeroplane. Strength tests on walls and other structural members are also regularly made.

Interesting research is going forward in co-operation with the railways on the use of diesel fuels at low temperatures and on the design and operation of railway locomotives.

A broad field of work is covered in radio and electrical engineering. Radar techniques, which have now reached a high level of achievement, are being applied successfully to problems in marine navigation and aerial surveying. Basic studies in electronics and radiophysics are being carried on continuously to keep the laboratories in the forefront among establishments in this new and steadily growing field. Service to the electrical industry is a



continuing function of the Division. A new surge generator for high-voltage research has been installed.

There has been steadily increasing activity during the year at the Chalk River atomic energy project. One of the more interesting items has been the production of 'cobalt 60' for use in medical and industrial radiology in place of radium. The feature of the Canadian product is that it is being made in the NRX reactor, or pile, with higher specific activity than can be obtained anywhere else in the world. This concentration of radioactivity in a small unit permits sharper pictures to be made than would be possible with a more diffuse source.

A new isotope separation laboratory has been completed and several hundred shipments of more than 20 different radioisotopes have been made to universities, research institutions, hospitals and industrial plants.

Many fundamental studies are proceeding in the fields of nuclear physics and chemistry on the properties and preparation of radioisotopes and the chemistry of the newer elements. Practical studies in progress relate to methods of separation of fission products, chemical and engineering process problems, and effects of radiation on structural materials. Great improvements have been made in special electronic measuring equipment.

Medical research projects sponsored by the National Research Council continue to be carried out in the several medical schools across Canada. A new departure during the year was the allocation of consolidated grants to selected institutions. These grants are made in each case for a selected and approved group of research projects to be carried out at a single institution.

Close co-operation with government departments, federal and provincial, with the universities and research foundations, as well as with industry, enables the Council to maintain at all times a good conspectus of research work in progress throughout Canada.

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*"Radel II", new experimental radar vessel, shown on her first summer cruise testing radar aids to marine navigation recently developed by the National Research Council.*





*Art students at Lac Rond, Ste Adèle, Que:*



# Social and Cultural Relationships

IN addition to schools and universities, there is the considerable variety of institutions and activities, broadly cultural in character, which assist us in our pursuit of knowledge or in the expression of our capabilities. Many of these have come under review by a Royal Commission on National Development in the Arts, Letters and Sciences set up by Order in Council of Apr. 8, 1949. The Commission was asked to make recommendations on the following matters:—

- (1) The principles upon which the policy of Canada should be based, in the field of radio and television broadcasting;
- (2) Such agencies and activities of the Government of Canada as the National Museum, the Public Archives and the care and custody of public records, the Library of Parliament; methods by which research is aided including grants for scholarships through various Federal Government agencies; the eventual character and scope of the National Library; the scope of activities of these agencies, the manner in which they should be conducted, financed and controlled, and other matters relevant thereto;
- (3) Methods by which the relations of Canada with the United Nations Educational, Scientific and Cultural Organization and with other organizations operating in this field should be conducted;
- (4) Relations of the Government of Canada and any of its agencies with various national voluntary bodies operating in the field of inquiry.

The Commission (which came to be referred to as the Massey Commission, after the name of its Chairman) began public hearings at Ottawa on Aug. 3, 1949, and has held hearings in all provinces. Briefs from a great variety of organizations, both official and unofficial, were heard. Publication of the Commission's report is expected in 1951.

## *Creative Arts*

An awakening of public interest in all forms of the arts in Canada, which was noted as an early post-war development in 1946, has continued to accelerate during the past four years, and cultural activities are assuming a relatively more important place in the life and thought of the Canadian people. This development can be attributed to a number of factors, some domestic and some having origin abroad. The post-war expansion and speeding-up of travel has resulted in a notable exchange of persons concerned with cultural and intellectual matters between Canada and other countries; travelling companies of artists, mainly from the United States and the United Kingdom, have whetted the Canadian appetite for first-rate musical, dramatic and ballet entertainment; growing interest in the affairs of UNESCO has led Canadians to a new international-mindedness in the cultural field; great stimulation of public interest in artistic and educational matters resulted from the newspaper publicity given to the nation-wide inquiry made by the Massey Commission; and finally, Canadian interest has been stimulated by the extraordinary volume of information reaching Canada, by periodical literature and radio, concerning the growth of public interest in the arts in other countries.



While artistic activity is at present vigorous in every part of Canada, it is to be observed that this activity is largely on a local or regional basis and that the factors which might tend toward the development of national cultural interests and loyalties are notably weak or absent. This situation was one which gained attention repeatedly during the public sessions of the Massey Commission.

The growth of interest in the arts and public support for cultural activities has been so widespread and general that it is difficult to give an adequate description of the situation in a brief space, and reference to representative examples is all that can be attempted here.

**Creative Writing.**—In both the English and French languages, Canadian writers are establishing themselves as original thinkers and competent literary craftsmen, and their works are receiving favourable recognition abroad as well as at home. Novelists, particularly, have gained widespread approval, in foreign translations as well as in the language of original writing, with their strong and realistic treatment of themes involving the problems of all humanity. Canadian writers in the non-fiction field, creative and reportorial, have been meeting with increasing success during recent years. Playwriting has received unusual attention and encouragement in Canada since 1945, and several volumes of plays by Canadian craftsmen, in English and French, have been successful publishing ventures. The 29th annual meeting of the Canadian Authors' Association, one of the better established national cultural organizations in Canada, was held at Montreal in 1950, in collaboration with its sister society, La Société des Écrivains Canadiens.

**Music.**—From the beginning of the country's history, music has been important in the life of Canadians, and to-day one finds organizations con-



*Music hath charm, too,  
for the young.*



*Musicians from all walks of life enjoy the harmony created by their combined talents. This London, Ont., group concentrates on the great music written for the chamber orchestra.*

cerned with the promotion, performance and teaching of music in every city, town and village. Musical appreciation and understanding is emphasized in the schools of every province, and conservatories in the larger cities are well attended and competently staffed. Annual music festivals are becoming outstanding events in a growing number of cities and the Canadian Musical Festivals Association, a national organization, has been formed recently. The Winnipeg Music Festival involves more than 20,000 participants and requires ten days of competitive performances. Opera has gained notably in public interest in Canada during the past several years, and a School of Opera is now an important division of the Royal Conservatory of Music of Toronto. The Canadian Broadcasting Corporation has organized an able operatic group and during the winter season of 1950-51 performances of Puccini's *Turandot*, Verdi's *Rigoletto*, Britten's *Albert Herring*, Puccini's *Madame Butterfly*, Gounod's *Faust* and Mozart's *Così Fan Tutte* are scheduled.

In Nova Scotia a successful venture in bringing operatic performances to smaller centres of population gained well-deserved attention in 1950, and, at Montreal, Toronto and Vancouver, opera performed by local talent is receiving encouraging public support. At Montreal a new venture in the form of an annual music-and-drama festival has passed through two





*Little Theatre groups are very active in most of the urban centres of Canada.*

years of experimentation and appears certain of established success. Symphony orchestras in a dozen Canadian cities are receiving increasingly satisfactory financial backing from local supporters, and the quality of their musical performances is showing improvement. Symphony orchestras at Toronto, Montreal and Vancouver are widely recognized as being of first-class calibre. Canadian composers are receiving increasing acceptance both in Canada and abroad, and are now finding important outlets for their works through the Canadian Broadcasting Corporation and Broadcast Music (Canada) Inc. Canadian musicians, also, are receiving invitations to perform abroad, and concert tours in the United States and in Europe are directing the attention of foreign music critics to the works of a group of young Canadian composers.

**Drama.**—The post-war revival of interest in theatre in Canada continues. The Dominion Drama Festival, which is a one-week competitive demonstration of the talents of amateur theatrical groups from various parts of Canada, enjoyed a most successful 1950 renewal. New developments of importance have been the establishment of a permanent national secretariat of the Dominion Drama Festival, at Ottawa, and the launching of a national theatre magazine under the ægis of that organization. Summer theatre groups have increased in numbers and exuberance and are now performing successfully in all parts of the country. Travelling theatre groups are functioning successfully in three provinces; in Saskatchewan the seasoned Western Stage Society group travelled 10,000 miles by motor-car during the summer of 1950; in Nova Scotia a small repertory company gave fifty performances in cities, towns and villages throughout the Province; and in Alberta an enterprising group of experienced actors did an extensive road-tour with a repertoire of all-Canadian plays. At Toronto a Shakespeare Festival enjoyed a second successful year in the summer of 1950. A great many people at Montreal,



Toronto and Ottawa have enjoyed visits from outstanding dramatic companies from London and New York during the past two years. The Little Theatre movement continues to thrive throughout the entire country, in spite of, or possibly as a result of, the deeply ingrained habit of movie-going. At Ottawa a professional company, the Canadian Repertory Theatre, has played a regular weekly schedule for several seasons and has succeeded in firmly establishing itself in the field of good entertainment.

**Painting.**—A continuation of widespread public interest in painting is observed in every part of urban Canada. Many new exhibitions and exhibitors are noted, and the numbers of people attending art exhibitions is a source of gratification to artists and educators. Thousands of Canadians have taken to painting as a hobby, with a resulting great increase in the activities of art schools. In Eastern Canada the past year has seen a considerable increase in the number of travelling exhibitions. Many of these are sponsored by the National Gallery of Canada, some being the works of Canadian artists and others selections to illustrate significant art developments in other countries. Groups of painters at all the Canadian cities, and particularly those at Montreal and Vancouver, are eager and vigorous, and are attracting a great deal of wholesome interest. The number of young Canadian painters who travel abroad—to Europe, to Mexico, to South America

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*Ballet has come into its own in Canada in recent years, both as a profession and as a recreation. An Ottawa group performs.*



or to the United States—is increasing, with a consequent enlargement of understanding and professional experience. Mature and established Canadian painters are at present finding a ready and profitable market for their works, and bookshops report a large sale of art literature.

**Ballet.**—Evidence of the phenomenal growth of public interest in the ballet was seen at the second annual Canadian ballet festival, at Toronto in 1949, when the largest theatre in the city was completely sold out for every one of ten performances. At the third annual festival at Montreal in November, 1950, sixteen ballet companies—from Vancouver, Winnipeg, Toronto, Ottawa, Montreal and Halifax—played to packed houses. A virtually unknown art in Canada a few years ago, ballet is now one of the greatest of box-office attractions. It is estimated that close to 20,000 students are enrolled in ballet schools throughout the country.

**Schools and Organizations.**—Cultural institutions in Canada are crowded with students and patrons, and are handicapped by lack of accommodation for expanding enrolments and ticket-seekers. A number of fine arts schools are attracting capacity attendance at summer and winter sessions, notable among these being the Banff School of Fine Arts, the Doon School and the well-known art schools at eight or ten universities and colleges. The écoles des beaux-arts at Montreal and Quebec and the Ontario College of Art, Toronto, are internationally known institutions. The Canadian Arts Council, Toronto, a federation of seventeen professional societies, and the Canada Foundation, Ottawa, an information centre supported by a large number of individual patrons, are the two non-governmental bodies best known as stimulants in the cultural life of Canada.

**Handicrafts.**—The varied resources of Canada provide the raw materials for home crafts using wood, metals, leather, wool, various fibres and dyes, and clay in some regions. The diverse origins of the people provide traditions of craftsmanship from many sources—the native Indians, the early French and British settlers, and the more recent immigrants from all parts of Europe and some parts of Asia.

Several provincial governments have given stimulus and direction to the development of handicrafts. Those of the Province of Quebec are probably most widely practised and known. There are various voluntary organizations on a local basis, nine of which are affiliated or associated with the Canadian Handicrafts Guild. The Guild has provincial branches in five provinces and maintains a permanent exhibit at its headquarters at Montreal.

### *Social Sciences and Humanities*

Research in the social sciences tends to be conducted in the universities and by government agencies, and to find its outlets, apart from books and government documents, in the quarterly journals of such societies as the Canadian Historical Association, the Canadian Political Science Association, the Canadian Psychological Association and the Canadian Institute of International Affairs. The several university 'quarterlies' also serve but, like the Proceedings of the Royal Society of Canada and the learned journals of the United Kingdom and the United States, are rather more important for the humanities than for the social sciences.





*Hooked rug display at a handicraft exhibition.*

The Canadian Social Science Research Council and the Humanities Research Council of Canada exist to promote research in their respective fields, and do so by means of grants in aid of research and publication, by fellowships, and by improvement of the training of research workers in the universities. In the few years of their existence the two Councils have been supported largely by grants from the Carnegie Corporation of New York and the Rockefeller Foundation. The Humanities Council has, however, received grants from twenty Canadian universities for five years, and seeks assistance from government sources. The Social Science Council does not desire government origin for any major portion of its income. Much of its subject field concerns matters of government policy, and it considers that greater independence would be retained by deriving its funds from a balanced variety of sources.

Both Councils have expressed the view before the Royal Commission on National Development in the Arts, Letters and Sciences that there is great need for government funds to provide scholarships and fellowships to students of the social sciences and humanities, in order to balance the opportunities provided to students of the natural sciences through the National Research Council awards. They pointed to a study made in the Dominion Bureau of





*Preparing a magpie  
skin for a museum  
study collection.*

Statistics which showed that nearly all science post-graduate students in Canadian universities receive financial assistance from scholarships, fellowships or part-time employment while studying, whereas only 30 p.c. of social science and humanities students are in receipt of such assistance.

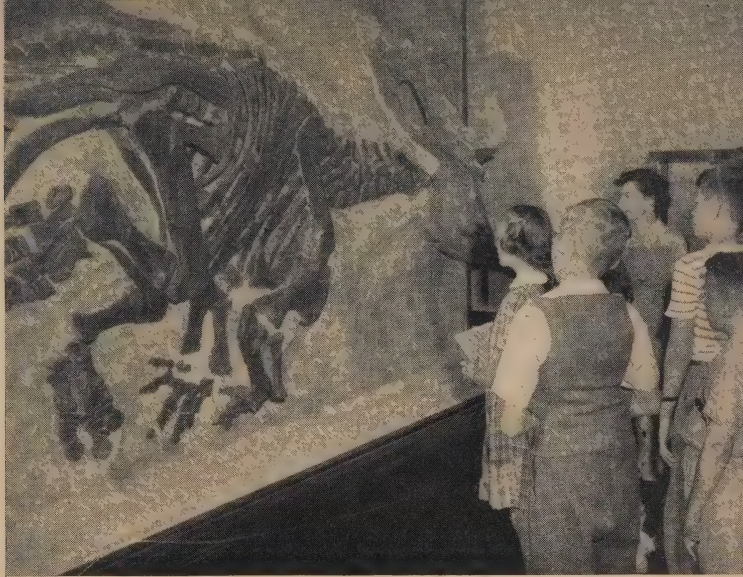
### *Libraries and Museums*

**Libraries.**—The public libraries of Canada, exclusive of Newfoundland for which complete statistics are not yet available, stock about 6,500,000 books. Registered borrowers number 1,200,000 persons, borrowing on the average 17 books in a year. The libraries are used less by adults than they were ten years ago, but more by children. The ratio of adult to juvenile book circulation is now about two to one. School libraries are, in the main, additional to the public library systems. Commercial lending libraries and individual purchases provide a large proportion of the books read by adults.

Library service in the Province of Newfoundland is under control of a Public Libraries Board within the Department of Home Affairs and Education. The system includes the Gosling Memorial Library of the city of St. John's, the Travelling Library and regional libraries. The Gosling Memorial Library reports a book stock of about 35,000 volumes. There were some 85,000 loans to 7,000 registered borrowers. The library provides free lending and reference service for some 50,000 population. The Travelling Library which serves a total population of 80,000, sent out 492 boxes in the year 1947-48 containing 18,869 books. More than 48,000 loans for home use were reported. Regional library service emanates from 26 centres to three branch libraries and 40 deposit stations and serves a population of 69,800. The circulation in 1947-48, including the service at the central libraries, was 151,202 issues.

In the older provinces, some improvement in rural service is apparent due to the establishment of new regional libraries and improved methods of

*School children studying the skeleton of a horned dinosaur at the National Museum, Ottawa.*



distribution of books to small rural community libraries. Exclusive of Quebec Province, which has a system of parish libraries not covered by the statistical survey, the service to rural areas has increased from 5 p.c. to 12 p.c. in the past decade. Nova Scotia has organized two new regional libraries for Annapolis Valley and Cape Breton Island, and Saskatchewan has established at Prince Albert the first regional library of a proposed provincial system.

Ontario has a system of county co-operative libraries and large township libraries as an adaptation of regional service. There are now 12 county library co-operatives and six township libraries in the province.

The older regional libraries of Prince Edward Island and British Columbia report increases in circulation of 5 p.c. and 12 p.c., respectively.

**Museums.**—Museums include the National Museum at Ottawa, several provincial and municipal museums, of which the Royal Ontario Museum is the largest, and several dozen others, many of them the property of universities, colleges or local historical societies. Archives include the Public Archives of Canada at Ottawa, and some provincial collections. Galleries of fine art include the National Gallery, and others mainly under municipal or unofficial local auspices. The trend in most of these institutions is to reach a wider public through collaboration with schools and by various extension methods including travelling exhibits. International exchanges are most frequent in the field of fine art through the medium of the National Gallery.

The functions of the Canadian Museums Association, organized in 1947, are to act as a clearing-house for information of special interest to Canadian museums, to promote the training of museum workers, to facilitate the exchange of exhibits, and to promote collaboration with museums of other countries.

## *Media of Mass Communication*

**The Press.**—Periodical publications were produced in Canada to the value of \$121,000,000 in 1948, and paid for to the extent of \$82,000,000 by advertising and \$39,000,000 by subscription or sale. Printed books were produced to the value of \$18,370,000, more than half for advertising purposes. There is no record of the cost of subscriptions by Canadians to periodicals published abroad but it is probably a larger figure than that for subscriptions from abroad for Canadian publications. Recorded imports of books and other printed matter exceeded the value of recorded exports by about \$27,000,000. It accordingly appears that the per capita cost to Canadians of books, pamphlets and periodicals is more than \$10 in a year, about half of which is paid for directly, and half indirectly through payment for advertising.

Much the largest item is for daily newspapers—rather more than half the total. Nearly 100 daily newspapers are published in Canada, counting morning and evening editions separately, with an aggregate reported circulation of more than 3,000,000 copies—about 80 p.c. English and the remainder French, except for small numbers in Yiddish and Chinese. Ten papers, each with circulations approximating or exceeding 100,000, account for more than half of the circulation. Well over 90 p.c. of all newspaper circulation is in cities.

Weekly or monthly publications, the total circulation of which is greater than that of dailies, include a considerable variety of foreign-language publications—Ukrainian, German, Yiddish, Polish, etc. Weekly newspapers serve much larger numbers of the people in rural communities than do the dailies.

Purchases of books and other printed matter from the United States are large, recorded imports being valued at about \$29,000,000 in each of the past four years. Imports from the United Kingdom have been growing since the war years, when comparatively little could be obtained, but are still valued at only about \$2,000,000. Imports from France, the third largest supplier, are now valued at \$500,000 or more.

**Radio.**—The number of radio receiving sets made available in Canada through production and imports has averaged about 700,000 per year since the end of the War. A Bureau of Statistics survey in November, 1949, indicated that 94 p.c. of the households in Canada, numbering 3,247,000, had radios. In some cities there is scarcely a household to be found without one, and in the country as a whole one family in ten has two or more.

In terms of price to the buyers, radios since the Second World War have averaged about \$70. Roughly speaking, one household in five has bought a set each year, indicating an average annual expenditure of about \$14. The cost of repairs and maintenance is probably a small item, and the licence fee is \$2.50 per year. This fee was paid by 2,057,799 possessors of receiving sets in 1948-49, and constituted the chief item of income for the Canadian Broadcasting Corporation. For information on the operations of the CBC and privately owned stations, see pp. 247-250.

**Motion Pictures.**—In 1949 Canadians on the average attended motion picture theatres about 18 times and paid about \$7 each in admissions. The source of this entertainment is still largely United States studios although, as in the case of books and other printed materials, there has been some revival of imports from the United Kingdom and France since the War.



While few feature-length films for the commercial theatres are produced in Canada, there is a considerable production of "shorts" both by the National Film Board and by commercial producers. Some of these have recently won important international awards. In 1949 the Canadian Association for Adult Education instituted a series of annual awards for distinguished Canadian film production, including theatrical and non-theatrical types, amateur and professional work. The project was developed by the Association's Joint Planning Commission on which are represented fifty national organizations interested in education and the arts; the awards are presented by the Prime Minister of Canada.

Schools, adult education agencies, and other community groups are making increased use of films. There are some 200 film libraries and community film councils usually founded by public libraries, provincial departments of education, or university extension departments, with the co-operation of school boards, service clubs, etc. The local libraries receive assistance from the National Film Board and the Canadian Film Institute (until 1950 called the National Film Society) in obtaining films. The National Film Board has some 160 rural circuits where provision is made for the periodical exhibition of films in a group of communities.

The National Film Board directs the distribution of Canadian films abroad. Considering the increased numbers of Canadian diplomatic and trade representatives in other countries, this has become an important part of the Board's work.



*Murals in the Canadian National Railways Station, Montreal, depicting Canadian industrial, social and cultural development, provide background material for a CBC broadcast.*



*Sawmill on the Fraser River, B.C., which specializes in red cedar siding and shingles. The booms beyond the plant contain the mill's working inventory of logs.*

# National Income

## Survey of Production

THIS chapter summarizes the year-to-year changes in the value of Canada's annual production of goods and services, and describes the way in which this total product of the country's economic activity is utilized to satisfy consumer wants, to provide government services, or to increase the nation's capital at home and abroad. The first section, "National Income", deals with net national income at factor cost, gross national product and expenditure, and personal income and its disposition. The second section, "Survey of Production", describes the gross and net value of commodity production of primary and secondary industries.

### ★ National Income

Net national income at factor cost, or *national income*, measures the value of current production after provision has been made for depreciation of capital assets, and exclusive of indirect taxes less subsidies. It is equal to the annual earnings of Canadian residents from the production of goods and services, that is, the sum of salaries, wages and supplementary labour income, military pay and allowances, corporation profits and other returns on invested capital, and net income of farmers and other enterprisers who are in business on their own account.

*Gross national product* is defined as the value at market prices of all the goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the costs involved in their production. It is obtained by adding to national income indirect taxes and depreciation allowances and similar business costs, which enter into the cost of goods and services (and hence market prices) but do not form a part of the incomes of Canadians. On the other hand, government subsidies are deducted since their effect is to reduce the cost of goods and services produced.

*Gross national expenditure* is defined as the market value of all goods and services produced in a year by the labour, capital and enterprise of Canadian residents, measured through a consolidated national accounting of the sales of these goods and services, including changes in inventories. Thus, while it measures the same total as gross national product, it indicates how the goods and services produced are disposed of to resident persons, the government, to business on capital account, and abroad.

**National Income and Gross National Product.**—The national income measured in current dollars increased by 4 p.c. from 1948 to 1949, from \$12,474,000,000 to \$12,917,000,000. This increase was mainly due to a rise in salaries, wages, and supplementary labour income of \$543,000,000, which more than offset small declines in net income of farm operators from current



farm production and in investment income. Net income of farm operators fell by 4 p.c., despite higher wheat adjustment payments to farmers. The decline was largely due to a lower volume of physical production. Investment income also declined by 4 p.c., attributable to a decline in corporation profits, the largest single component of investment income.

The gross national product reached \$16,074,000,000 in 1949, a gain of 4 p.c. over 1948. Since it is measured in terms of current dollars, the gross national product reflects price changes as well as changes in the physical volume of production. If adjustments are made for the influence of price changes, the real output of goods and services increased approximately 2 p.c.

During the post-war years 1946-49, the value of total output increased 34 p.c. The rise in value was most rapid during 1947 and 1948, the years of the greatest price increases. However, with the effect of price increases removed, the total volume of output shows a steady gain of approximately 2 p.c. per year.

### ***Net National Income at Factor Cost and Gross National Product at Market Prices, 1929, 1933, 1939 and 1944-49***

(Millions of Dollars)

| Item   | 1929         | 1933         | 1939         | 1944          | 1945          | 1946          | 1947          | 1948          | 1949          |
|--|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Salaries, wages and supplementary labour income.             | 2,839        | 1,791        | 2,583        | 4,908         | 4,915         | 5,322         | 6,212         | 7,139         | 7,682         |
| Military pay and allowances.....                             | 8            | 8            | 32           | 1,068         | 1,117         | 340           | 83            | 82            | 115           |
| Investment income.....                                       | 814          | 233          | 783          | 1,770         | 1,905         | 1,987         | 2,299         | 2,379         | 2,283         |
| Net Income of Agriculture and Other Unincorporated Business— |              |              |              |               |               |               |               |               |               |
| Farm operators, from farm production.....                    | 443          | 98           | 461          | 1,213         | 959           | 1,130         | 1,104         | 1,567         | 1,509         |
| Other unincorporated business.....                           | 585          | 257          | 430          | 782           | 892           | 1,040         | 1,218         | 1,307         | 1,328         |
| <b>Net National Income at Factor Cost.....</b>               | <b>4,689</b> | <b>2,387</b> | <b>4,289</b> | <b>9,741</b>  | <b>9,788</b>  | <b>9,819</b>  | <b>10,916</b> | <b>12,474</b> | <b>12,917</b> |
| Indirect taxes less subsidies.....                           | 674          | 566          | 737          | 1,111         | 1,003         | 1,269         | 1,601         | 1,768         | 1,780         |
| Depreciation allowances and similar business costs.....      | 677          | 500          | 582          | 863           | 785           | 846           | 1,036         | 1,126         | 1,316         |
| Residual error of estimate                                   | -84          | +15          | -10          | +204          | +234          | +74           | +104          | +135          | +61           |
| <b>Gross National Product at Market Prices.....</b>          | <b>5,956</b> | <b>3,468</b> | <b>5,598</b> | <b>11,919</b> | <b>11,810</b> | <b>12,008</b> | <b>13,657</b> | <b>15,503</b> | <b>16,074</b> |

**Gross National Expenditure.**—All components of the gross national expenditure except exports and investment in inventories showed an increase in 1949 compared with 1948. Personal expenditure on consumer goods and services increased from \$10,151,000,000 in 1948 to \$10,956,000,000 in 1949. After correcting for price changes, the increase in the real volume of consumer goods and services amounted to 3 p.c.

Government expenditure on goods and services increased by \$291,000,000 in 1949 over 1948, due mainly to increased defence expenditures and larger outlays by provincial and municipal governments on public health, hospital care, maintenance of highways, education, and certain capital expenditures.



*Ontario harvest. The net income of farmers from farm production amounted to 12 p.c. of the total personal income received by Canadians in 1949.*

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The aggregate of gross home investment declined by \$342,000,000 in 1949 as compared with 1948, due entirely, as indicated above, to a decline of \$508,000,000 in investment in inventories. Investment in housing, on the other hand, rose by 16 p.c., from \$647,000,000 in 1948 to \$753,000,000 in 1949. With price changes accounted for, the rise in the volume of new housing was approximately 11 p.c. The slight increase indicated in the value of investment in plant and equipment was more than accounted for by price changes.

Total exports of goods and services declined in the same comparison by \$67,000,000 while imports increased by \$189,000,000. Thus the net foreign balance was \$162,000,000 in 1949 compared with \$418,000,000 in 1948.

It is interesting to compare the spending pattern of the nation in the war year 1944 with 1949, the latest year for which data are available. Under pressure of war requirements consumer spending was curtailed, with the result that only 54 p.c. of gross national expenditure was absorbed by personal purchases of consumer goods and services in 1944. In the same year government spending, mainly for war requirements, absorbed 42 p.c. of total output and gross home investment was relatively small. In 1949, on the other hand, personal expenditure on consumer goods and services accounted for 68 p.c. of gross national expenditure while government expenditure was only 13 p.c. of the total. At the same time, gross home investment in housing, plant, equipment and inventories accounted for 18 p.c. of gross national expenditure.

# Gross National Expenditure at Market Prices, 1929, 1933, 1939 and 1944-49

(Millions of Dollars)

| Item   | 1929         | 1933         | 1939         | 1944          | 1945          | 1946          | 1947          | 1948          | 1949          |
|--|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Personal expenditure on consumer goods and services.....     | 4,383        | 2,848        | 3,861        | 6,382         | 7,050         | 8,018         | 9,225         | 10,151        | 10,956        |
| Government expenditure on goods and services <sup>1</sup> .. | 686          | 521          | 724          | 5,025         | 3,708         | 1,832         | 1,562         | 1,797         | 2,088         |
| Gross Home Investment—Plant, equipment and housing.....      | 1,107        | 221          | 554          | 756           | 882           | 1,362         | 2,057         | 2,663         | 2,829         |
| Inventories.....   | 10           | -105         | 327          | -67           | -283          | 538           | 901           | 609           | 101           |
| Exports of goods and services <sup>2</sup> .....             | 1,632        | 826          | 1,451        | 3,596         | 3,597         | 3,210         | 3,638         | 4,054         | 3,987         |
| Imports of goods and services.....                           | -1,945       | -828         | -1,328       | -3,569        | -2,910        | -2,878        | -3,621        | -3,636        | -3,825        |
| Residual error of estimate.                                  | +83          | -15          | +9           | -204          | -234          | -74           | -105          | -135          | -62           |
| <b>Gross National Expenditure at Market Prices.</b>          | <b>5,956</b> | <b>3,468</b> | <b>5,598</b> | <b>11,919</b> | <b>11,810</b> | <b>12,008</b> | <b>13,657</b> | <b>15,503</b> | <b>16,074</b> |

<sup>1</sup> Includes UNRRA, Mutual Aid, etc., of \$960,000,000, \$858,000,000, \$97,000,000, \$38,000,000, \$19,000,000 in the years 1944, 1945, 1946, 1947 and 1948, respectively. <sup>2</sup> Excludes UNRRA, Mutual Aid, etc.; see footnote 1.

## Volume and Price Components of Gross National Expenditure.—

The series on gross national expenditure and its components are expressed in terms of current money values and consequently they may change substantially from one year to the next as a result of price changes. However, it is essential to know, as well, the real change in expenditure and production (i.e., in terms of constant, unchanging dollars), in order to discover whether any real progress has been made.

As a part of its continuing program of research and development, the Bureau of Statistics has prepared a series of price indices suitable for 'deflating' gross national expenditure and its components. These indices are expressed as percentages of 1935-39 average prices and, by dividing the appropriate index into a component of gross national expenditure, a series is obtained which is expressed in terms of 1935-39 dollars. Thus it is possible to see the real movement of expenditures exclusive of increases or decreases caused solely by changes in price levels.

**Personal Income and Expenditure.**—The total personal income received by Canadians and the disposition of that income is shown in the following tables.

Personal direct taxes took approximately 6 p.c. of personal income in 1949 and 7 p.c. in 1948, as compared with 9 p.c. in 1944. On the other hand, personal expenditure on consumer goods and services absorbed 88 p.c. in 1949 and only 72 p.c. in 1944. A definite shift in the pattern of consumer spending occurred during this period. The proportion of expenditure for durable goods, such as automobiles and refrigerators which were in short supply during the War, rose from 4 p.c. in 1944 to 9 p.c. in 1949. At the same time, the proportion spent for services declined from 31 p.c. to 27 p.c., while the proportion spent for food, clothing and furniture remained about the same. Personal saving in 1948 and 1949 showed a marked decline from



1944, when shortages existed in many lines of consumer goods and the government system of war finance encouraged intensive savings programs.

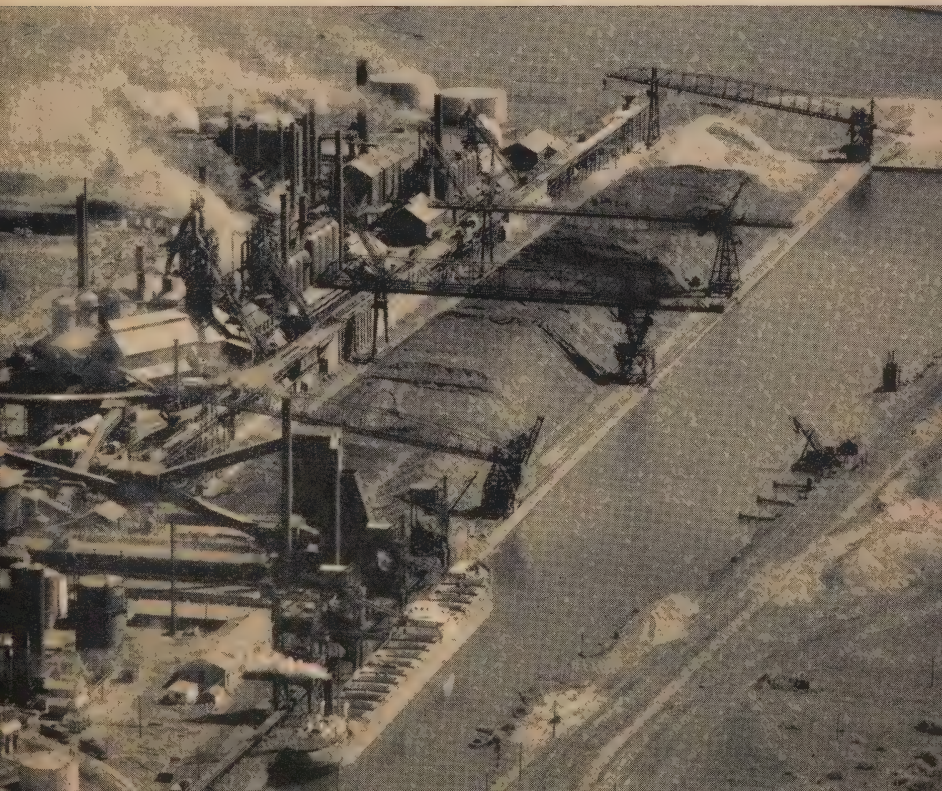
### Personal Income, by Sources, 1929, 1933, 1939 and 1944-49

(Millions of Dollars)

| Source  | 1929         | 1933         | 1939         | 1944         | 1945         | 1946         | 1947          | 1948          | 1949          |
|---|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|
| Salaries, wages and supplementary labour income.  | 2,839        | 1,791        | 2,583        | 4,908        | 4,915        | 5,322        | 6,212         | 7,139         | 7,682         |
| Less: Employer and employee contributions to social insurance and government pension funds..... | -25          | -20          | -34          | -133         | -136         | -149         | -181          | -223          | -241          |
| Military pay and allowances.....  | 8            | 8            | 32           | 1,068        | 1,117        | 340          | 83            | 82            | 115           |
| Net income of agriculture and other unincorporated business.....                                | 1,028        | 355          | 891          | 1,995        | 1,851        | 2,170        | 2,322         | 2,874         | 2,837         |
| Interest, dividends and net rental income of persons <sup>1</sup>                               | 584          | 428          | 570          | 804          | 848          | 882          | 1,065         | 1,107         | 1,167         |
| Transfer payments from governments to persons.  | 98           | 196          | 249          | 261          | 546          | 1,106        | 841           | 863           | 905           |
| <b>Totals, Personal Income</b>  | <b>4,532</b> | <b>2,758</b> | <b>4,291</b> | <b>8,903</b> | <b>9,141</b> | <b>9,671</b> | <b>10,342</b> | <b>11,842</b> | <b>12,465</b> |

<sup>1</sup> Includes charitable donations from corporations.

Algoma steel plant at Sault Ste. Marie, Ont., where iron ore is processed to semi-finished and finished articles. This is Canada's main producer of heavy structural shapes.



## Disposition of Personal Income, 1929, 1933, 1939 and 1944-49

(Millions of Dollars)

| Item   | 1929.        | 1933         | 1939         | 1944         | 1945         | 1946         | 1947          | 1948          | 1949          |
|--|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|
| Personal Direct Taxes—                                   |              |              |              |              |              |              |               |               |               |
| Income taxes.....  | 33           | 38           | 61           | 772          | 733          | 711          | 695           | 717           | 673           |
| Succession duties.....                                   | 16           | 13           | 28           | 39           | 47           | 54           | 61            | 58            | 55            |
| Miscellaneous.....                                       | 19           | 16           | 21           | 27           | 29           | 31           | 35            | 47            | 57            |
| Totals, Direct Taxes....                                 | 68           | 67           | 110          | 838          | 809          | 796          | 791           | 822           | 785           |
| Personal expenditure on consumer goods and services..... | 4,383        | 2,848        | 3,861        | 6,382        | 7,050        | 8,018        | 9,225         | 10,151        | 10,956        |
| Personal Saving—   |              |              |              |              |              |              |               |               |               |
| Net changes in farm inventories.....                     | -144         | -29          | 60           | -124         | -238         | -41          | -123          | -65           | -73           |
| Other.....   | 225          | -128         | 260          | 1,807        | 1,520        | 898          | 449           | 934           | 797           |
| Totals, Personal Saving.                                 | 81           | -157         | 320          | 1,683        | 1,282        | 857          | 326           | 869           | 724           |
| <b>Totals, Personal Income</b>                           | <b>4,532</b> | <b>2,758</b> | <b>4,291</b> | <b>8,903</b> | <b>9,141</b> | <b>9,671</b> | <b>10,342</b> | <b>11,842</b> | <b>12,465</b> |

## ★ Survey of Production

The value of commodity production in Canada during 1948 was the greatest ever attained in the history of the country. The gross value of \$18,143,186,852 was more than one-fifth above the preceding year when it stood at \$15,059,932,299. Although 1948 is the latest year for which definite statistics are available, estimates for 1949 and 1950 indicate that the advance was continued.

This section deals with gross and net values of commodity production. Net production in general represents the amount contributed to the national economy by the leading industrial groups engaged in commodity production. It is made up of the total value less the cost of materials, fuel, purchased electricity and process supplies consumed in production.\*

For purposes of economic discussion the net figure should be used in preference to the gross, in view of the large amount of duplication included in the latter. Therefore, the subsequent analysis is based mainly on the net statistics. Net production was valued at a record \$9,297,539,436 in 1948 against \$7,687,094,637 in 1947. This important gain was due largely to the rapid advance in prices during the period, although physical output also increased as evidenced by a rise of 3.4 p.c. in the index of the physical volume of industrial production.

Higher price levels and the release of pent-up demand for consumer goods in Canada and abroad, together with record investment in durable goods such as housing, plant and equipment, have contributed to the high level of production in the post-war years. A peak was reached in 1948, the latest year for which detailed figures are available, while the index of industrial production rose from 181.5 in 1948 to 184.3 in 1949 and the general index of wholesale prices advanced nearly 2.3 p.c. in the same comparison. The gross

\*A description of the method used in computing gross and net production figures is given in the *Survey of Production* issued by the Dominion Bureau of Statistics.



*Aluminum ingots ready for shipment from the world's largest aluminum smelter at Arvida, Que.*



value of farm production, however, declined from \$2,709,617,000 in 1948 to \$2,672,601,000 in 1949 indicating an appreciable recession in the value of agricultural output.

**Branches of Production.**—In the 1948 analysis, each of the nine industrial groups, with the exception of trapping, reached an all-time high point. High building activity and record prices for construction materials resulted in a 38 p.c. increase in the net value of construction over 1947, the most outstanding increase of all the groups. Higher prices and greater physical output also caused forestry and mining to attain their highest positions in history in terms of net value. The former rose more than 12 p.c. over 1947 and the latter nearly 32 p.c. Increases of varying amount were recorded for agriculture, fisheries, electric power and custom and repair. Trapping increased over 1947 after recording a low level from 1941 to that year. Total manufactures surpassed even the wartime peak of 1944, advancing 15 p.c. over 1947 to a record of \$4,940,369,190.

The following table classifies industry into primary and secondary production, but naturally many stages of manufacturing are closely connected with primary activities. Fish-curing and -packing plants, for instance, are operated in close relationship to the fishing fleets, sawmills with forest operations and smelters and refineries with metal mining.



## Gross and Net Values of Production, by Industries, 1947 and 1948

| Industry   | 1947                  |                      | 1948                  |                      |
|--|-----------------------|----------------------|-----------------------|----------------------|
|  | Gross                 | Net                  | Gross                 | Net                  |
|  | \$                    | \$                   | \$                    | \$                   |
| Agriculture.....   | 2,121,972,000         | 1,507,519,000        | 2,709,617,000         | 1,994,391,000        |
| Forestry.....  | 1,628,909,054         | 953,918,800          | 1,821,420,204         | 1,070,439,308        |
| Fisheries.....   | 174,279,465           | 110,088,471          | 202,779,295           | 126,409,390          |
| Trapping.....  | 16,842,966            | 16,842,966           | 20,178,077            | 20,178,077           |
| Mining.....  | 1,010,643,735         | 552,309,949          | 1,299,707,149         | 727,950,430          |
| Electric power.....  | 238,929,627           | 232,245,222          | 257,377,490           | 248,909,319          |
| <i>Less duplication in forest production<sup>1</sup>....</i> | <i>113,652,000</i>    | <i>89,058,000</i>    | <i>129,287,000</i>    | <i>101,599,000</i>   |
| Totals, Primary Production.....                              | 5,077,924,847         | 3,283,866,408        | 6,181,792,215         | 4,086,678,524        |
| Construction.....  | 1,256,535,677         | 601,539,452          | 1,665,561,000         | 829,644,000          |
| Custom and repair.....                                       | 364,141,000           | 247,086,000          | 411,485,000           | 279,211,000          |
| Manufactures.....  | 10,081,026,580        | 4,292,055,802        | 11,876,790,012        | 4,940,369,190        |
| Totals, Secondary Production.....                            | 11,701,703,257        | 5,140,681,254        | 13,953,836,012        | 6,049,224,190        |
| <i>Less duplication in manufactures<sup>2</sup>.....</i>     | <i>1,719,695,805</i>  | <i>737,453,025</i>   | <i>1,992,441,375</i>  | <i>838,363,278</i>   |
| <b>Grand Totals....</b>                                      | <b>15,059,932,299</b> | <b>7,687,094,637</b> | <b>18,143,186,852</b> | <b>9,297,539,436</b> |

<sup>1</sup> Duplication eliminated between the agriculture and forestry totals; both items include the value of forest products obtained from farm lots. <sup>2</sup> This item includes sawmills, pulp and paper mills, etc., also included under other headings above.

**Provincial Distribution.**—In every province net value of production in 1948 reached a new maximum. Prince Edward Island advanced over its peak of \$22,144,000 established in 1946. Net production in Quebec increased nearly 18 p.c. over 1947, while the Canadian total was approximately 21 p.c. greater. The relative importance of Quebec was less in 1948 than in the preceding year. Ontario also lost ground in this comparison, although a gain of 19 p.c. was recorded in net production. Despite an advance of 12 p.c. in New Brunswick, the province receded in relative importance, while Nova Scotia and Prince Edward Island recorded increases proportionally greater than in Canada as a whole.

## Gross and Net Values of Production, by Provinces, 1947 and 1948

| Province or Territory                | 1947                  |                      | 1948                  |                      |
|--------------------------------------|-----------------------|----------------------|-----------------------|----------------------|
|                                      | Gross                 | Net                  | Gross                 | Net                  |
|                                      | \$                    | \$                   | \$                    | \$                   |
| Prince Edward Island.....            | 40,089,679            | 19,493,244           | 54,025,931            | 25,526,257           |
| Nova Scotia.....                     | 381,124,094           | 198,468,760          | 478,572,001           | 240,368,685          |
| New Brunswick.....                   | 364,943,501           | 183,102,027          | 412,711,909           | 204,384,387          |
| Quebec.....                          | 4,142,685,426         | 2,050,946,288        | 4,963,714,368         | 2,427,241,801        |
| Ontario.....                         | 6,468,596,568         | 3,148,517,907        | 7,672,980,044         | 3,744,622,952        |
| Manitoba.....                        | 694,207,858           | 366,588,138          | 889,879,959           | 484,100,707          |
| Saskatchewan.....                    | 732,677,966           | 458,040,217          | 924,079,836           | 614,515,972          |
| Alberta.....                         | 815,624,396           | 493,641,826          | 1,073,361,412         | 668,992,346          |
| British Columbia.....                | 1,410,897,678         | 761,385,115          | 1,660,522,895         | 883,650,706          |
| Yukon and Northwest Territories..... | 9,085,133             | 6,911,115            | 13,338,497            | 10,135,623           |
| <b>Canada.....</b>                   | <b>15,059,932,299</b> | <b>7,687,094,637</b> | <b>18,143,186,852</b> | <b>9,297,539,436</b> |

Each of the *Prairie Provinces* recorded a gain of more than 30 p.c. over 1947 to establish a new maximum and achieve a more favourable position in commodity production. The output of British Columbia was 16 p.c. greater than in 1947, but the advance was less than in the country-wide total.

**Per Capita Output.**—The per capita output in Canada during 1948, expressed in money terms, recorded a maximum of \$722. This surpassed the previous record of \$563 in 1944 by nearly 28 p.c. Ontario at \$871 was the leader on a per capita basis, and British Columbia at \$817 was in second place. With a per capita production of \$791 Alberta held third place followed by Saskatchewan. Manitoba and Quebec shared fifth place, each with a production of \$640 per person. New Brunswick, Nova Scotia and Prince Edward Island followed in the order named.

**Provincial Movements.**—Agriculture in *Prince Edward Island* is obviously the predominant source of income accounting for almost 56 p.c. of the net value of production in 1948. Forestry and trapping recorded declines but considerable increases were shown in the other industries. Construction advanced nearly 72 p.c. over 1947 compared with 31 p.c. in net value for the Province. Decreases in forestry and trapping in *Nova Scotia* were more than offset by increases in the other industries, producing a new maximum for the Province. Similarly, sharp advances in forestry, construction and manufactures were responsible for the new peak in net value for *New Brunswick*.

The production of manufactures in *Quebec*, excluding the duplication of processing industries, amounted to 50 p.c. of the provincial total in 1948. Forestry contributed 16 p.c. and was second in relative importance. Agriculture accounted for only 12 p.c. of the total, but net value produced in this industry increased 36 p.c. over 1947. Important gains were shown also in mining, construction and manufactures.

It is readily apparent that manufactures holds the most outstanding position in *Ontario*. Excluding processing industries, manufactures' share of the total was 59 p.c. in 1948. All industries recorded advances. Construction gained 41 p.c. over 1947 followed by agriculture with an increase of 25 p.c. Forestry and mining advanced 18 p.c. and 17 p.c., respectively, over the preceding year while total manufactures rose 16 p.c.

Almost every industry in the *Prairie Provinces* showed an increase over 1947. The relative importance of agriculture was 47 p.c., 76 p.c. and 58 p.c., respectively, in Manitoba, Saskatchewan and Alberta. The dominant position of this industry in Saskatchewan accounts for the marked fluctuations in the output of the Province. Manufactures was second in importance in the three provinces, the percentage at 33 for Manitoba being the greatest. Net value of construction and mining in each of the *Prairie Provinces* advanced considerably over 1947 with the result that each of the three provinces registered a greater gain over 1947 than any other province.

Trapping was the only industry in *British Columbia* to register a decline in 1948 from 1947. Electric power increased in value by approximately 48 p.c., construction rose 40 p.c., while mining registered an advance of nearly 33 p.c. over 1947.





# Primary Production

## ★ Agriculture

**A**LTHOUGH Canada is no longer as predominantly agricultural as it was two decades ago, agriculture still remains the basic industry. Hastened by two world wars, bringing a demand for all manner of new products, Canada has developed industrially and ranks high among the world's producers of manufactured goods. But with this expansion and change in the national economy, the importance of agricultural production has not lessened, indeed the output of Canadian farms has greatly increased. The agricultural industry employs, directly, one-quarter of the gainfully occupied population and in 1949 Canadian farmers had a net income from farming operations of \$1,537,387,000, about 4 p.c. less than the all-time high record of 1948.

But estimates of farm income, however large, do not express fully the part of agriculture in the economy of the country. The raw products of the farm must in many instances be further processed in meat-packing plants, in canning factories, in milk, cheese and butter establishments. The final products must in turn be graded, packaged, transported and marketed. All of these operations provide employment for many more Canadian workers. Further employment is provided in the production of the supplies farmers buy—farm machinery and implements, fertilizers and pesticides.

Agriculture is the country's most decentralized industry and its production comes from 733,000 farms spread from ocean to ocean and ranging in size from the few acres of the market gardener to the large wheat farms of the prairies, which average over 400 acres, and the immense ranch lands in the foothills of the Rocky Mountains.

**Types of Farming.**—There are many types of farming carried on in Canada. At the one extreme is wheat production, which predominates in the Prairie Provinces of Alberta, Saskatchewan and Manitoba; at the other are the intensified operations connected with small fruits, market gardening and tobacco, such as are carried on in southern Ontario and in parts of British Columbia.

Four important agricultural regions are readily distinguished. Agricultural operations in British Columbia are carried on principally in the mountain valleys and the coastal plains, and include dairying, poultry-raising, the growing of apples and small fruits, seed growing, and market gardening, with cattle ranching on a large scale carried on in the areas between the mountain ranges of the interior.

The Prairie Provinces of Alberta, Saskatchewan and Manitoba, form a block which includes about two-thirds of the occupied farm land of the country. The area is used chiefly for grain production and it is on these prairie farms that Canada's spring wheat is harvested. The climate here is more extreme than in other agricultural areas. The frost-free period is fairly short, rainfall is limited and variable, and the choice of farm enterprises is severely restricted by nature and markets.

The southern parts of Quebec and Ontario are included in a central group. Most of the agricultural portions of these Provinces are favoured with a temperate climate. Here are located the densest centres of population, and local conditions and markets have much to do with types of farming, which are quite varied. Thus, near the cities of Toronto and Ottawa and other large consumer districts, there are fairly well defined areas on which farmers cater to city demand for dairy produce, market-garden truck, potatoes and other vegetables, and poultry. In the general inter-lake region of Ontario are several large areas where beef-raising is important. These are among the earliest settled portions of the Province. Long-established dairying districts are also located in this part of Ontario and in Oxford county, and in Dundas county around the eastern tip of Lake Ontario, where cheese production predominates. The mild climate of the Niagara Peninsula favours fruit-growing and vegetable production, while the counties on the shores of Lake Erie produce market-garden crops, tobacco, sugar-beets, corn, orchard crops and produce for canning.

Agricultural production in the Province of Quebec is concentrated on both banks of the St. Lawrence River where the climatic conditions lend themselves to dairying, poultry and hog-raising. There is, in addition, a fringe of farming somewhat north of this. In a fairly well defined area tobacco is grown, largely of the pipe and cigar type, in contrast to Ontario where cigarette tobacco is more commonly produced. In the vicinity of the city of Montreal, there is a highly specialized area where small fruits, apples, vegetables and poultry are main enterprises. Some of the districts bordering the United States specialize in dairy farming. Maple syrup and sugar are quite important additions to the farm income in many sections.

The eastern group includes the Maritime Provinces of Prince Edward Island, Nova Scotia and New Brunswick. Over this area the climate is generally temperate, favouring dairying, mixed farming, potato-growing, and the growing of apples and other fruits. The agriculture of Newfoundland is chiefly local in character.

As Canada's agriculture is varied, she is able to produce the bulk of her own foods. Imported foods include mainly those tropical and semi-tropical commodities that flourish elsewhere—tea, coffee, cocoa, rice and citrus fruits. Some fresh fruits and vegetables are imported during the off-season.

**Source of Farm Income.**—From the time Canada became an important exporter of agricultural produce, wheat has been the chief source of income. However, since 1926, the first year for which adequate comparable information is available, wheat and grains have become relatively less important as a source of farm income—although their dollar value has increased. In 1926, the sale of wheat provided nearly 44 p.c. of all cash income; by 1948, the percentage was down to 23. The sale of all live-stock products provided nearly 38 p.c. of the cash income in 1926, but rose to 54 p.c. in 1948. Some of this percentage change was brought about by overseas demand for foodstuffs during the war and post-war years, and naturally such figures vary from year to year depending on the output of all commodities and the demand for specific ones.

**Export Trade.**—The agricultural production of Canada is greater than domestic needs, and farming adapted to export trade has consequently been



*A western Manitoba wheat field and grain elevators.*

a natural development. Not only is Canada a large exporter but, according to a study by the United Nations, she is one of the few countries to maintain output at a level above that of 1934-38.

During 1949 Canada exported, to nearly one hundred different countries, farm products valued at \$939,000,000. These included wheat and flour, meat animals and meat products, dairy and poultry products, apples and other fruits, potatoes—both seed and table stock—canned and processed foods of many kinds, dried beans, field and garden seed and tobacco. For fifty years or more, the Government has been steadily establishing and improving standards of quality for export commodities. These standards are widely recognized abroad, and many Canadian foods and agricultural products command premium prices because of the strict quality standards maintained. Canada also exports numbers of live stock for breeding purposes, under a health-inspection arrangement that makes them acceptable in all countries.

**Research and Experimentation.**—Agricultural research and its interpretation to the farmer in a practical manner so that it can be effective in the large-scale operations on the farm has been one of the many tasks of the Department of Agriculture for two-thirds of a century. The work comes under two of the main sections of the Department: the Experimental Farms Service and the Science Service.

There are in operation to-day 29 Experimental Farms and Stations, 12 Experimental Substations, 52 District Experimental Substations, 155 Illustration Stations, and 9 Branch Laboratories. Co-ordination and supervision of scientific activities in the major branches of practical agriculture is effected through appropriate Divisions with headquarters at the Central Farm at Ottawa and with suitable laboratories both at Ottawa and at other points in Canada.





*A field of peas at the Central Experimental Farm, Ottawa.*

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Quite apart from the work of the Central Experimental Farms, research has long been carried on by units of the Science Service, which includes the research Divisions of Animal Pathology, Bacteriology and Dairy Research, Botany and Plant Pathology, Chemistry and Entomology and the Division of Plant Protection. The work of Science Service is directed toward the solution of practical problems of agriculture through scientific investigation. It deals with problems relating to the ravages of insect pests and diseases affecting plants and animals, the deterioration of plant and animal products from fungi and bacteria, the nutritional requirements of plants and animals, and the chemistry and microbiology of soils, foods and dairy products. It carries out chemical and biological determinations required in the administration of various Federal Acts and Regulations, such as the Pest Control Products Act and the Feeding Stuffs Act, and administers the Destructive Insect and Pest Act, including the inspection of imported and exported plants and plant products and the establishment of quarantine and control measures for introduced pests and diseases.

All the experimental and research work is co-ordinated with the other units of the Department and with special research projects undertaken by the National Research Council and by universities and agricultural colleges.

A matter of grave concern to the future of agriculture is the loss of soil through wind and water erosion, and its decreasing productivity through improper methods of cultivation. Much is being done in Western Canada through activities under the Prairie Farm Rehabilitation Act and in Eastern

Canada under the Maritime Marshland Rehabilitation Act, but these are large-scale undertakings. The need is for action by individual farmers on their own farms. Soil conservation is under constant study by the Department and methods are recommended, directed toward keeping the soil where it belongs—on the farm—and keeping it productive.

**Legislation to Assist the Farmer.**—A number of the Acts passed by the Federal Parliament in recent years directly assist the farmer to meet many of his problems. The most important of these are described below.

*Agricultural Prices Support Act, 1944.*—Under this Act, the Federal Government, acting through a Board, may stabilize the price of any agricultural product (except wheat, which is handled separately) by outright purchase or by underwriting the market through guarantees or deficiency payments.

*The Agricultural Products Co-operative Marketing Act, 1939.*—This Act aids farmers in pooling the return from the sale of their products by guaranteeing initial payments, thus assisting in the orderly marketing of the product.

*Agricultural Products Marketing Act, 1949.*—A number of provincial governments have marketing schemes which regulate the marketing of farm products produced and marketed within the province. Under this Act such provincial marketing legislation may be applied to cover the marketing of agricultural products outside the province and in export trade.

*Prairie Farm Rehabilitation Act.*—Land conservation activities are being continued under the Prairie Farm Rehabilitation Act, which was passed in April, 1935, "to provide for the rehabilitation of drought and soil-drifting areas in the Provinces of Manitoba, Saskatchewan and Alberta". In accordance with the terms and intentions of this Act, there has been organized throughout the drier regions of the Prairie Provinces (comprising over 400,000 square miles located in southwestern Manitoba, southern Saskatchewan and southeastern Alberta) a rehabilitation program which has as its main objective the adjustment of prairie agriculture to the conditions imposed by severe droughts such as those of the 1930-37 period. This rehabilitation program

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A Quebec Farmerette.



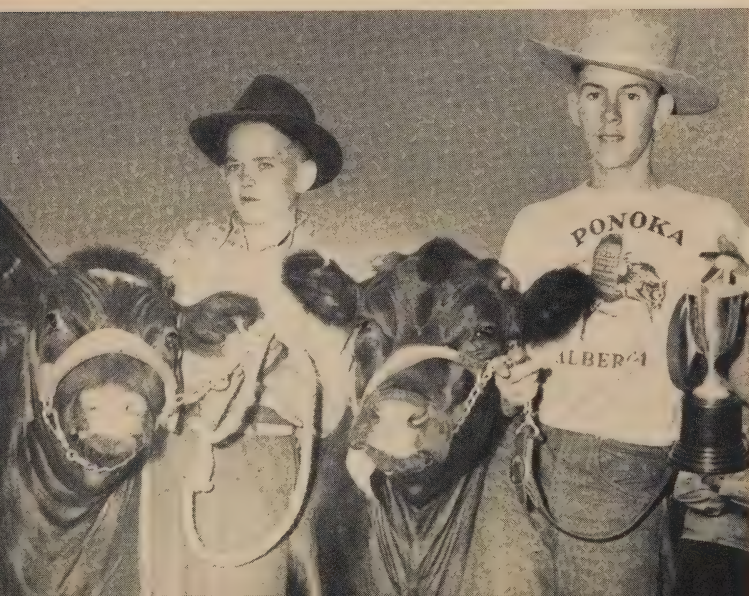


covers three main phases of work: water development, land utilization and promotion of better farming practices. Approximately \$40,000,000 have been spent on this program to Mar. 31, 1950, the bulk of which has gone into the construction of water-development projects ranging in size from small reservoirs on individual farms to irrigation projects involving thousands of acres. The construction of community pastures on sub-marginal lands has also been important.

*Land Reclamation.*—While operations under the Prairie Farm Rehabilitation Act are confined to the Prairie Provinces, land reclamation and development work is being carried out elsewhere by the Department of Agriculture to meet special situations. Several projects relating to the settlement of veterans have been undertaken in British Columbia and assistance has been granted to the Maritime Provinces for emergency repairs of the protective dykes in the coastal marshland areas. The Maritime Marshland Rehabilitation Act, passed in 1948, provides for a thorough-going program of dykeland reconstruction, with provincial co-operation. Expenditures under this program to Mar. 31, 1950, have been approximately \$2,150,000.

*Prairie Farm Assistance Act, 1939.*—Under the Prairie Farm Assistance Act, 1939, the Federal Government makes cash payments each year to farmers in areas within the Prairie Provinces which have had low crop yields because of drought or other causes. The award to a farmer is based upon the cultivated acreage of the farm and the average yield of wheat in the township in which the farm is located, and the maximum amount payable on any one farm is \$500. Contributory payments are made by the farmers in the form of a levy of one per cent on the value of all grains marketed. As at Mar. 31, 1950, \$125,818,806 had been paid out in benefits and \$46,949,436 collected from the levy.

*Potato Warehouses.*—A policy was inaugurated in 1947 whereby the Federal Department of Agriculture provides cash assistance in respect to potato warehouses constructed by co-operative associations. The assistance is conditional upon the associations providing an agreed amount; the Federal



Grand Champion and Reserve Grand Champion at the Calf Club Show, Lacombe, Alta., proudly displayed by their owners. Junior farmer clubs provide great incentive to the younger members of the farming community.





*Cattle-judging at the Charlottetown, P.E.I., fair. Local fairs, which are held in many districts across the country, encourage competition and the development of good farming practice.*

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Government and the Provincial Government concerned share the remainder. All warehouses must have the approval of a Dominion-Provincial Committee set up for the purpose in each province concerned.

*Cheese and Cheese Factories.*—The Cheese and Cheese Factory Improvement Act was passed in 1939 to encourage the improvement of cheese and cheese factories. Under the provisions of this Act a quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over.

The Act provides for the payment of not over 50 p.c. of the amount actually expended for new material, new equipment and labour utilized in constructing, reconstructing and equipping cheese factories eligible for a subsidy. The Act also provides for paying 50 p.c. of the cost actually expended in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. In order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing equipment necessary for this purpose.

*Farm Credit.*—To provide adequate farm credit, the Canadian Farm Loan Board at present carries on lending operations throughout Canada. Loans may be granted for farm improvements, including the erection of

buildings, the purchase of live stock and equipment, farm operating expenses, the purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm lands. For intermediate term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act, 1944.

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act, the Farm Improvement Loans Act, and the Veterans' Land Act.

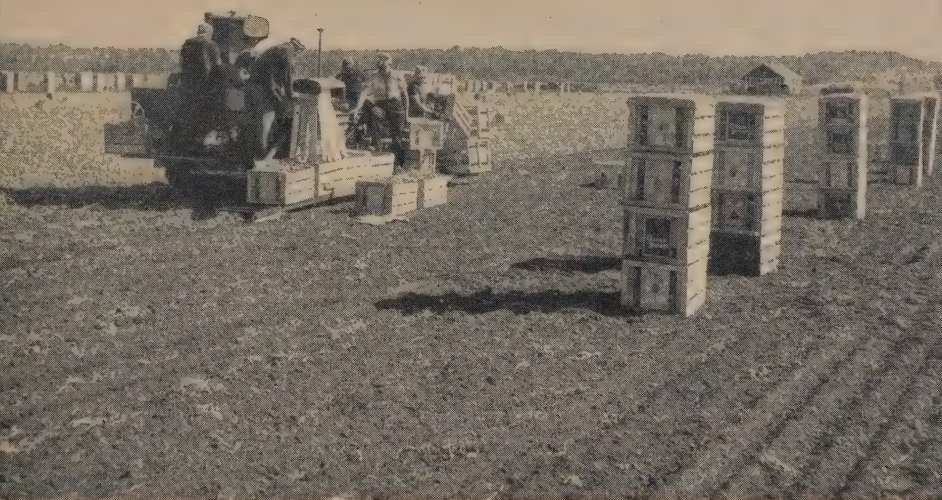
**Interest in the Food and Agriculture Organization of the United Nations.**—Canada, as an important agricultural producer and exporter, has maintained a close interest in FAO, and has played a prominent role in its development. A Canadian was a member of the original Executive Committee of the Organization, and Canada has had continuous representation on the eighteen-member Council of FAO which replaced this Committee. Canadians are on most of the standing advisory technical committees, and have taken part in many missions sent to undeveloped countries by the Organization. Canada has been able to provide technical and scientific assistance to other nations and, on the other hand, has benefited from technical and statistical information supplied by FAO, and through national and international policies relating to agricultural production and distribution.

## *Statistics of Agriculture*

**Income of Farm Operators.**—Net income of farmers from farming operations in 1949 amounted to \$1,537,387,000 which was about 4 p.c. below the all-time high of \$1,600,336,000 established in 1948. The decline was a result of somewhat smaller cash receipts from the sale of farm products, reduced value of income in kind, declining inventories of grain and a continued increase of farm operating expenses and depreciation charges. This income figure includes supplementary payments made, under the provisions of the Prairie Farm Assistance Act, to farmers in the drought-stricken areas of the Prairie Provinces.

### *Net Income of Farm Operators from Farming Operations, 1947-49*

| Item  | 1947             | 1948             | 1949             |
|---|------------------|------------------|------------------|
|   | \$'000           | \$'000           | \$'000           |
| 1. Cash income.....   | 1,967,263        | 2,459,393        | 2,456,871        |
| 2. Income in kind.....  | 340,104          | 377,465          | 350,610          |
| 3. Value of changes in inventory.....                                     | -123,213         | -65,059          | -72,698          |
| 4. <b>Gross Income (1 + 2 + 3).....</b>                                   | <b>2,184,154</b> | <b>2,771,799</b> | <b>2,734,783</b> |
| 5. Operating expenses and depreciation charges...                         | 1,067,168        | 1,192,211        | 1,215,024        |
| 6. Net income excluding supplementary payments<br>(4-5).....              | 1,116,986        | 1,579,588        | 1,519,759        |
| 7. Supplementary payments.....  | 11,577           | 20,748           | 17,628           |
| 8. <b>Net Income of Farm Operators from Farm-<br/>ing Operations.....</b> | <b>1,128,563</b> | <b>1,600,336</b> | <b>1,537,387</b> |



*Vegetable combine, operating in an onion field in southern Ontario, cleans and tops the onions and loads them into crates.*

Annual estimates of cash income from the sale of farm products, the most important income component of net income, represents gross returns from all products sold off farms valued at prices received by farmers. The estimates include those Federal and Provincial Government payments that farmers receive as subsidies to prices, but they do not include the supplementary payments defined above. For 1949 this cash income, including grain equalization and participation payments for previous years' crops, is estimated at \$2,457,000,000, slightly below the estimate for 1948 but still substantially above the 1947 cash return.

The maintenance of farm cash income at the present level may be largely attributed to increased returns from the sale of wheat and live stock and the substantial grain equalization and participation payments distributed in 1949 for previous years' crops. The latter payments amounted to \$220,000,000 in 1949 compared with \$179,800,000 and \$79,100,000 in 1948 and 1947, respectively. In this connection, however, western producers of coarse grains have received only an initial payment per bushel on coarse grains delivered since Aug. 1, 1949. However, producer certificates issued to farmers at the time of delivery entitle them to share, at a later date, in any surpluses accumulated by the Canadian Wheat Board through the sale of these grains so delivered.

While year-end live-stock inventories displayed an increase for the first time since 1944, this gain was more than offset by a substantial decline in year-end, farm-held stocks of grain. Farm operating expenses and depreciation charges continued their upward climb in 1949, although at a somewhat lower rate than in the previous year. The increase in 1949 amounted to about 2 p.c. as compared with a gain of about 12 p.c. in 1948.





Three pure-bred jersey heifers at pasture. This picture was quite unposed, yet the posture of the animals is exceptionally attractive.

### Cash Income from the Sale of Farm Products, by Provinces, 1947-49

| Province                  | 1947             | 1948             | 1949             |
|---------------------------|------------------|------------------|------------------|
|                           | \$'000           | \$'000           | \$'000           |
| Prince Edward Island..... | 17,602           | 22,345           | 21,247           |
| Nova Scotia.....          | 32,691           | 37,526           | 37,969           |
| New Brunswick.....        | 39,904           | 46,342           | 44,703           |
| Quebec.....               | 286,909          | 355,025          | 346,714          |
| Ontario.....              | 545,540          | 662,032          | 653,512          |
| Manitoba.....             | 181,564          | 247,297          | 238,117          |
| Saskatchewan.....         | 428,489          | 534,002          | 556,350          |
| Alberta.....              | 340,308          | 452,510          | 460,218          |
| British Columbia.....     | 94,256           | 102,314          | 98,041           |
| <b>Totals.....</b>        | <b>1,967,263</b> | <b>2,459,393</b> | <b>2,456,871</b> |

### Cash Income from the Sale of Farm Products, by Sources, 1949

| Source                                    | Cash Income | Source                                     | Cash Income      |
|---|-------------|--|------------------|
|   | \$'000      |  | \$'000           |
| Grains, seeds and hay.....                | 855,913     | Miscellaneous farm products....            | 46,366           |
| Vegetables and other field crops. .       | 154,737     | Forest products sold off farms...          | 69,928           |
| Live stock.....                           | 806,212     | Fur farming.....                           | 8,896            |
| Dairy products.....                       | 350,032     |  |                  |
| Fruits.....                               | 45,352      |  |                  |
| Eggs, wool, honey and maple products..... | 119,435     | <b>Cash Income from Farm Products.....</b> | <b>2,456,871</b> |

**Farm Prices.**—In 1949, for the first time since 1939, the steady, upward climb of the annual average index numbers of farm prices\* of agricultural products was reversed. The annual figure for 1949, estimated at 250.5, was almost two points below the all-time high of 252.4 established in 1948. Since

\*A description of this index, its coverage and the methods used, will be found in the "Quarterly Bulletin of Agricultural Statistics" for October-December, 1946, published by the Dominion Bureau of Statistics.

January, 1950, increasing live-stock prices have been reflected in a steadily rising index which in July reached a level of 262.0, only slightly below the all-time monthly high of 263.8 set in August, 1948.

### *Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1945-50*

(1935-39 = 100)

| Year and Month | P. E. I. | N.S.  | N.B.  | Que.  | Ont.  | Man.  | Sask. | Alta. | B. C. | Total |
|----------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1945 Av.....   | 196.7    | 180.8 | 195.3 | 179.5 | 174.6 | 186.3 | 189.4 | 193.4 | 187.9 | 184.2 |
| 1946 Av.....   | 194.2    | 191.1 | 207.7 | 196.9 | 187.9 | 204.3 | 209.5 | 213.2 | 199.0 | 200.8 |
| 1947 Av.....   | 180.1    | 184.6 | 199.6 | 213.7 | 202.1 | 220.8 | 218.3 | 225.2 | 206.8 | 212.5 |
| 1948 Av.....   | 236.6    | 214.1 | 250.4 | 265.6 | 258.6 | 254.6 | 239.3 | 256.2 | 240.0 | 252.4 |
| 1949 Av.....   | 203.9    | 208.2 | 220.2 | 261.4 | 257.0 | 251.8 | 239.3 | 257.2 | 245.3 | 250.5 |
| 1949—          |          |       |       |       |       |       |       |       |       |       |
| Jan.....       | 196.5    | 217.1 | 227.5 | 274.0 | 266.1 | 260.0 | 243.9 | 260.4 | 251.9 | 257.6 |
| Feb.....       | 200.5    | 219.2 | 224.3 | 271.1 | 258.9 | 257.0 | 240.8 | 255.1 | 246.7 | 253.0 |
| Mar.....       | 199.8    | 216.4 | 223.4 | 267.6 | 254.0 | 253.8 | 240.5 | 257.0 | 247.2 | 251.1 |
| Apr.....       | 197.7    | 211.7 | 219.3 | 259.1 | 253.5 | 254.5 | 241.7 | 261.3 | 247.9 | 250.8 |
| May.....       | 195.5    | 210.5 | 216.9 | 256.2 | 251.4 | 257.2 | 242.7 | 262.3 | 245.4 | 250.3 |
| June.....      | 210.5    | 211.9 | 215.3 | 260.9 | 260.9 | 256.7 | 242.6 | 262.2 | 244.2 | 253.7 |
| July.....      | 214.4    | 210.7 | 216.3 | 260.3 | 261.8 | 253.4 | 240.4 | 260.5 | 247.4 | 253.0 |
| Aug.....       | 248.0    | 223.0 | 231.7 | 261.1 | 259.1 | 248.2 | 237.8 | 262.5 | 252.3 | 252.8 |
| Sept.....      | 211.8    | 196.1 | 228.7 | 260.1 | 256.8 | 248.8 | 235.9 | 252.2 | 241.3 | 248.2 |
| Oct.....       | 195.4    | 198.1 | 216.5 | 256.1 | 255.1 | 242.7 | 233.8 | 251.3 | 241.7 | 245.7 |
| Nov.....       | 190.1    | 190.8 | 214.3 | 255.4 | 252.0 | 244.6 | 235.7 | 249.6 | 241.5 | 244.7 |
| Dec.....       | 186.7    | 192.5 | 208.0 | 255.4 | 253.9 | 244.7 | 235.9 | 251.7 | 236.5 | 245.4 |
| 1950—P         |          |       |       |       |       |       |       |       |       |       |
| Jan.....       | 176.0    | 188.5 | 201.3 | 250.2 | 242.4 | 241.3 | 232.1 | 246.9 | 226.2 | 238.5 |
| Feb.....       | 174.7    | 189.7 | 203.8 | 251.5 | 248.5 | 245.8 | 235.0 | 251.3 | 232.4 | 242.7 |
| Mar.....       | 180.1    | 192.6 | 208.8 | 252.7 | 252.3 | 248.8 | 237.7 | 256.2 | 233.6 | 246.0 |
| Apr.....       | 189.9    | 190.5 | 209.2 | 254.5 | 255.2 | 253.4 | 240.4 | 260.0 | 233.4 | 248.8 |
| May.....       | 176.2    | 190.4 | 207.3 | 253.2 | 258.5 | 250.7 | 241.1 | 260.3 | 236.3 | 249.5 |
| June.....      | 207.9    | 198.8 | 217.7 | 259.9 | 269.5 | 258.4 | 245.3 | 270.1 | 242.2 | 258.0 |
| July.....      | 200.7    | 201.3 | 229.7 | 264.1 | 275.6 | 261.7 | 247.9 | 272.2 | 246.7 | 262.0 |
| Aug.....       | 217.6    | 210.1 | 230.4 | 264.4 | 276.1 | 245.6 | 218.8 | 253.0 | 255.4 | 251.8 |
| Sept.....      | 199.3    | 217.0 | 228.0 | 267.4 | 277.3 | 243.3 | 201.0 | 246.2 | 257.9 | 247.3 |
| Oct.....       | 183.4    | 213.3 | 224.5 | 264.2 | 270.5 | 234.1 | 194.5 | 232.0 | 254.8 | 239.5 |

### *Field Crops*

**Wheat.**—In 1949-50, for the second year in the post-war period, export supplies of grain equalled or exceeded effective demand, and production in many importing countries approached pre-war levels, permitting a return to a more normal pattern of grain utilization. In most countries rationing of bread and feed has been largely discontinued, high flour-extraction rates have been reduced, and measures requiring the heavy use of admixtures in wheat flour have been relaxed. Prices have also declined considerably as compared with the high points reached during 1947-48.

While foreign exchange difficulties and political problems are becoming an increasing factor in the international movement of grain and flour, the completion of the first year's transactions under the International Wheat Agreement demonstrated a willingness on the part of a large number of the world's major exporting and importing nations to achieve a measure of stability in international wheat marketing. A preliminary total of recorded wheat and flour moving under the Agreement during 1949-50 was 432,000,000 bu., about 53 p.c. of the total world trade in those commodities. Canada, as one of the major wheat-exporting countries ratifying the Agreement, shipped approximately 184,000,000 bu. under its provisions in 1949-50.

Canada's 1950 wheat acreage was estimated at 27,000,000 acres, about half a million less than the previous year's, but still the fourth largest on record. Despite the reduction in acreage from 1949, mid-season indications were for a crop far in excess of that year's harvest. However, unfavourable weather in the Prairie Provinces in late August and early September necessitated a reduction in the crop estimate and in November the Canadian wheat crop was placed at 461,700,000 bu. Although the quantity was considerably higher than the 367,400,000 bu. harvested in 1949-50, the quality was much lower due mainly to frost damage. Approximately 85 p.c. of the 1949 crop was graded No. 3 Northern or better, in contrast to an estimated 34 p.c. of the 1950 crop qualifying for these grades.

The estimated production along with carryover stocks of 113,000,000 bu. places Canada's total wheat supplies for the 1950-51 crop year at about 575,000,000 bu. as against 470,000,000 bu. in 1949-50. Supplies for the current crop year should, therefore, be the greatest since the Second World War period when total supplies were bolstered by abnormally large carryover stocks.

Domestic disappearance of wheat during 1950-51, tentatively placed at about 155,000,000 bu., would leave 420,000,000 bu. for export and carryover at the end of the crop year. Under the International Wheat Agreement, now in its second year of operation, Canada has a commitment of approximately 219,000,000 bu. Sufficient quantities of quality wheat should be available to meet demands under the Agreement with a small margin left over for sale outside the Agreement. As already mentioned, current wheat supplies contain substantial quantities of low-grade wheat and markets must be found for much of this if a maximum level of exports is to be achieved. Unfortunately, a late western harvest together with a tight transportation situation that developed in the autumn of 1950 retarded the eastward movement of wheat which will be a limiting factor affecting the marketing of both milling and feed grades.

### *Production, Imports and Exports of Wheat, Years Ended July 31, 1941-51*

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of 4½ bu. to the barrel of 196 lb. of flour.

| Year ended July 31— | Production <sup>1</sup> | Imports of<br>Wheat<br>and Flour | Exports of<br>Wheat<br>and Flour |
|---------------------|-------------------------|----------------------------------|----------------------------------|
|                     | '000 bu.                | bu.                              | bu.                              |
| 1941.....           | 540, 190                | 122, 798                         | 231, 206, 245                    |
| 1942.....           | 314, 825                | 29, 102                          | 225, 828, 432                    |
| 1943.....           | 556, 684                | 3, 023                           | 214, 700, 901                    |
| 1944.....           | 284, 460                | 432, 931                         | 343, 755, 319                    |
| 1945.....           | 416, 635                | 404, 547                         | 342, 945, 515                    |
| 1946.....           | 318, 512                | 74, 765                          | 343, 185, 751 <sup>2</sup>       |
| 1947.....           | 413, 725                | 15, 584                          | 239, 420, 837 <sup>2</sup>       |
| 1948.....           | 341, 758                | 824, 677                         | 194, 982, 342 <sup>2</sup>       |
| 1949.....           | 386, 345                | 288, 881                         | 232, 329, 335 <sup>2</sup>       |
| 1950.....           | 367, 406                | 4, 059                           | 225, 136, 785 <sup>2</sup>       |
| 1951.....           | 461, 730 <sup>p</sup>   | ..                               | ..                               |

<sup>1</sup> Previous year's harvested crop.

<sup>2</sup> Exports of flour for the period August, 1945, to July, 1950, have been revised to remove effect of time-lag in returns made by customs.





*Swathers operating in a 90-acre field of registered seed wheat at Balcarres, Sask.*

With the termination of the Canada-United Kingdom Wheat Agreement at July 31, 1950, sales to the United Kingdom are currently being made under the terms of the International Wheat Agreement. From the beginning of the current crop year up to Oct. 2, sales under the I.W.A. were made at the maximum of \$1.98 per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. With the decontrol of the Canadian dollar on that date, fluctuation in value of the Canadian dollar became a factor in pricing of wheat, the maximum price of I.W.A. wheat varying with the movement of the dollar. The Canadian Wheat Board's selling price of I.W.A. wheat has been and continues to be at the maximum. On Dec. 1 the selling price to countries participating in the International Wheat Agreement was \$1.88½ per bu. while that for Class II wheat, for sale outside the Agreement, was \$1.95½ per bu. The domestic price is identical with that to countries under the International Wheat Agreement and will thus fluctuate in accordance with the daily I.W.A. price.

During the 1949-50 crop year the domestic price and the price under the Canada-United Kingdom Wheat Agreement were \$2.00 plus 6 cents carrying charges (5 cents until Sept. 30) per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Prices to countries under the provisions of the I.W.A. were \$1.80 per bu. from the beginning of the crop

year (Aug. 1, 1949) until the devaluation of the Canadian dollar on Sept. 19, 1949. After devaluation the price was increased to \$1.98 per bu. where it remained until the close of the crop year. A carrying charge of 5 cents applied from the beginning of the crop year until Dec. 13 when it was dropped. There was considerable fluctuation in Class II prices from a low of \$2.04 per bu. on Aug. 16 to a high of \$2.41 on Oct. 6, and when the crop year closed on July 31, 1950, stood at \$2.06. The rapid rise during the latter part of September, 1949, was due primarily to devaluation of the Canadian dollar.

The five-year pool under which producers formerly marketed their wheat terminated on July 31, 1950, and the pool arrangement now covers the current crop year only. The initial price to producers for the 1950-51 crop year is \$1.40 per bu. basis No. 1 Northern in store Fort William-Port Arthur or Vancouver, with differentials established for other grades. The final price received by producers for each grade of wheat will depend upon the average prices at which the Board sells each grade of wheat in the 1950-51 pool. The excess of receipts over and above the initial payments will be distributed to producers on the basis of participation certificates issued when the wheat is marketed.

**Coarse Grains.—Oats.**—The area sown to oats in 1950 was 11,600,000 acres, slightly above the 1949 and 1948 acreages of 11,400,000 and 11,200,000 acres, respectively, but well below the five-year averages of 13,200,000 acres for 1935-39 and 13,400,000 acres for 1943-47. The 1950 oat crop is estimated at 420,300,000 bu., considerably above the harvests of the past five years, but well below the record production of 652,000,000 bu. in 1942. While carry-over stocks of 44,300,000 bu. on July 31, 1950, were below those of the two preceding crop years, total supplies for 1950-51 at 464,600,000 bu. showed a considerable improvement over the 1949-50 supplies of 378,400,000 bu.

Commercial supplies for the 1950-51 crop year are estimated at 109,800,000 bu., comprised of the 10,500,000 bu. carryover at July 31, 1950, and estimated farmers' marketings of 99,300,000 bu. If marketings reach this anticipated level it will place commercial oats supplies for the current crop year about 18,500,000 bu. higher than in 1949-50.

During the 1949-50 crop year the marketing of western Canadian oats was undertaken by the Canadian Wheat Board through an oats pool covering deliveries up to July 31, 1950. Initial payments were made on the basis of 65 cents per bu. for No. 2 C.W., in store Fort William-Port Arthur, with price differentials established for other grades. At the time of delivery the producers received the initial payment, less freight and other handling charges to Lakehead. Surpluses accumulated by the Board on the sale of oats delivered to the Board during the crop year amounted to \$15,546,322, of which approximately 23 p.c. was distributed among Manitoba producers, 52 p.c. among Saskatchewan producers and 25 p.c. among Alberta producers. Payments were made on a grade basis and averaged about 19½ cents per bu. for the principal grades. The same procedure in marketing western oats is being followed in 1950-51 on a one-year pool basis under the Canadian Wheat Board. The basic initial payment is again 65 cents per bu. for No. 2 C.W. in store Fort William-Port Arthur.

Under the pressure of low feed-grain supplies and strong domestic and export demand for live-stock products, Canadian feed-grain prices started

advancing in January, 1950, and reached record levels during June. The average cash price of No. 1 feed oats during June was \$1.14 $\frac{1}{8}$  per bu., with the daily high of \$1.22 registered on June 7. Later, the prospect of improved feed-grain supply resulted in an easing of prices and on Dec. 1 No. 1 feed oats were quoted at 89 $\frac{1}{4}$  cents per bu.

*Barley.*—In 1950 the area sown to barley in Canada was 6,600,000 acres, an increase of 600,000 acres over 1949. The record acreage sown was 8,400,000 acres in 1943. The 1950 production is estimated at 171,300,000 bu., an increase of 51,000,000 bu. over 1949. Most of the gain took place in the Prairie Provinces, though all other provinces except Nova Scotia participated to some degree.

Carryover stocks of barley at the beginning of the 1950-51 crop year were 20,400,000 bu., the lowest since the beginning of the 1942-43 crop year. Larger production, however, more than offset the decreased carryover with the result that total supplies for the current crop year will be slightly over 191,700,000 bu. as compared with 1949-50 supplies of 150,100,000 bu.

Commercial supplies for the 1950-51 crop year are estimated at 88,700,000 bu., consisting of the 8,900,000 bu. carryover at July 31, 1950, and estimated farmers' marketings of 79,800,000 bu. Commercial supplies for the previous crop year amounted to 63,900,000 bu.

The marketing of barley during the 1949-50 crop year was on the same basis as that for oats outlined above. Initial payments were made on the

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*Stooking oats at Greenhill, N.S. Nearly 12,000,000 acres across the country are sown to oats each year.*





basis of 93 cents per bu. for No. 3 C.W. 6-row, in store Fort William-Port Arthur. Final payments on deliveries of barley under the 1949-50 marketing pool, amounting to \$26,643,973, were distributed, with approximately 42 p.c. going to Manitoba producers, 34 p.c. to Saskatchewan producers and 24 p.c. to Alberta producers. Another one-year marketing pool for barley, with the same basic initial payment, is operating during 1950-51.

Barley prices, subject to much the same influence as oat prices, also rose to record levels in 1949-50. Average prices obtained by the Canadian Wheat Board on its domestic and export sales in June for No. 1 C.W. 6-row and No. 1 feed barley were \$1.81 $\frac{3}{8}$  and \$1.51 $\frac{1}{4}$  per bu., respectively. During the first four months of 1950-51, prices averaged appreciably lower than these levels and on Dec. 1, 1950, No. 1 C.W. 6-row and No. 1 feed were quoted at \$1.47 $\frac{1}{4}$  and \$1.33 $\frac{1}{4}$  per bu., respectively.

*Rye.*—The 1950 acreage of rye in Canada, estimated at 1,200,000 acres, was almost unchanged from 1949. Over 70 p.c. of the acreage in both years was sown to fall rye and over 60 p.c. of the total of this variety was seeded in Saskatchewan alone. Ontario is the only area outside the Prairie Provinces where any appreciable amount of fall rye is grown. Relatively small acreages of spring rye are seeded in Quebec and British Columbia, but the greater proportion is seeded in the Prairie Provinces.

The 1950 crop is estimated at 13,300,000 bu. as against 10,000,000 bu. in 1949. With carryover stocks at July 31, 1950, of 6,600,000 bu., total supplies for the current crop year will amount to 19,900,000 bu., about 2,000,000 bu. less than in 1949-50.

Commercial supplies for 1950-51 are estimated at 13,900,000 bu., consisting of July 31, 1950, carryover stocks of 5,500,000 bu. and estimated marketings of 8,400,000 bu. If this level is realized, it will mean that commercial supplies of Canadian rye will be 2,700,000 bu. below those of 1949-50.

Rye is traded on the open market, with producers and purchasers making their own arrangements through the ordinary trade channels. In 1949-50 cash prices for rye fluctuated considerably, ranging from a low of \$1.27 $\frac{1}{4}$  to a high of \$1.63 $\frac{1}{2}$  per bu. for No. 2 C.W. basis in store Fort-William-Port Arthur. On Dec. 1, 1950, the cash price for No. 2 C.W. rye was \$1.53 $\frac{1}{4}$  per bu.

*Flaxseed.*—The estimated production of Canada's 1950 flaxseed crop, at 4,500,000 bu., was more than double the small crop of 1949. However, the 1950 production is not large historically, amounting to less than half of the ten-year (1940-49) average of 9,800,000 bu. Total supplies for 1950-51, amounting to 9,000,000 bu., are 4,000,000 bu. below the previous year, but indications are that the 1950-51 supplies will be increased to some extent by imports to meet requirements for crushing. During the 1949-50 crop year producers in Western Canada had the option of marketing their flaxseed through a voluntary producers' pool under the Canadian Wheat Board or selling in the open market. Since open market prices ranged well above the initial payment guaranteed by the Board (2.50 per bushel for No. 1 C.W. basis in store Fort William-Port Arthur), producers sold their flaxseed through ordinary market channels. Almost 90 p.c. of the 1949 crop graded No. 1 C.W. and average monthly prices for this grade ranged from \$3.41 $\frac{3}{8}$  per bu. in August to \$3.79 in December, 1949. The price dropped to an average of \$3.59 $\frac{3}{8}$  in Aug., 1950, but subsequently regained most of this decrease, with No. 1 C.W. being quoted at \$3.73 per bu. on Dec. 1.



*The potato is New Brunswick's most important agricultural crop.*

### *Acreages, Production and Values of Field Crops, 1949 and 1950*

| Crop                             | Revised Estimate 1949 Crops |            |                      | Third Estimate 1950 Crops |            |                               |
|----------------------------------|-----------------------------|------------|----------------------|---------------------------|------------|-------------------------------|
|                                  | Area                        | Production | Gross Farm Value     | Area                      | Production | Gross Farm Value <sup>1</sup> |
|                                  | '000 acres                  | '000 bu.   | \$'000               | '000 acres                | '000 bu.   | \$'000                        |
| Wheat.....                       | 27,541                      | 367,406    | 566,114 <sup>2</sup> | 27,021                    | 461,730    | 490,595 <sup>2</sup>          |
| Oats.....                        | 11,389                      | 317,916    | 251,045              | 11,575                    | 420,328    | 265,776 <sup>2</sup>          |
| Barley.....                      | 6,017                       | 120,408    | 157,124              | 6,625                     | 171,328    | 133,879 <sup>2</sup>          |
| Rye.....                         | 1,182                       | 10,011     | 12,294               | 1,168                     | 13,346     | 16,547                        |
| Peas, dry.....                   | 58                          | 936        | 2,653                | 49                        | 829        | 2,615                         |
| Beans, dry.....                  | 93                          | 1,766      | 6,092                | 76                        | 1,385      | 5,549                         |
| Soy beans.....                   | 104                         | 2,605      | 5,887                | 142                       | 3,039      | 6,655                         |
| Buckwheat.....                   | 170                         | 3,570      | 4,422                | 155                       | 3,859      | 4,865                         |
| Mixed grains.....                | 1,683                       | 55,928     | 55,627               | 1,679                     | 73,556     | 72,014                        |
| Flaxseed.....                    | 322                         | 2,284      | 7,570                | 547                       | 4,540      | 14,911                        |
| Corn, shelled.....               | 272                         | 13,650     | 17,552               | 306                       | 13,839     | 19,871                        |
| Potatoes.....                    | 510                         | 89,197     | 83,255               | 505                       | 97,410     | 60,788                        |
|                                  |                             | '000 cwt.  |                      |                           |            | '000 cwt.                     |
| Turnips, etc. <sup>3</sup> ..... | 106                         | 19,582     | 23,938               | 103                       | 22,965     | 22,037                        |
|                                  |                             | '000 tons  |                      |                           |            | '000 tons                     |
| Hay and clover.....              | 9,502                       | 12,122     | 237,744              | 9,254                     | 13,164     | 241,823                       |
| Alfalfa.....                     | 1,489                       | 2,602      | 55,031               | 1,547                     | 3,239      | 60,982                        |
| Fodder corn.....                 | 567                         | 5,476      | 34,615               | 628                       | 6,396      | 35,673                        |
| Grain hay.....                   | 740                         | 914        | 11,301               | 814                       | 1,109      | 14,500                        |
| Sugar beets.....                 | 84                          | 859        | 11,750               | 102                       | 1,091      | 13,821 <sup>4</sup>           |

<sup>1</sup> First estimate of value.

<sup>2</sup> Based on initial payments only. Later participation payments will increase these values.

<sup>3</sup> Excluding production in the Prairie Provinces.

<sup>4</sup> Estimated total value except for Alberta where only the initial payment is available.

**Live Stock.**—Numbers of live stock on farms in Canada are shown for recent years in the following table.

*Numbers of Principal Species of Live Stock on Farms, June 1, 1941-50*

| Year      | Cattle | Hogs  | Sheep and Lambs | Horses |
|-----------|--------|-------|-----------------|--------|
|           | '000   | '000  | '000            | '000   |
| 1941..... | 8,517  | 6,081 | 2,840           | 2,789  |
| 1942..... | 8,945  | 7,125 | 3,197           | 2,816  |
| 1943..... | 9,665  | 8,148 | 3,459           | 2,775  |
| 1944..... | 10,346 | 7,741 | 3,726           | 2,735  |
| 1945..... | 10,759 | 6,026 | 3,622           | 2,585  |
| 1946..... | 9,665  | 4,910 | 2,942           | 2,200  |
| 1947..... | 9,718  | 5,473 | 2,707           | 2,032  |
| 1948..... | 9,476  | 4,463 | 2,247           | 1,904  |
| 1949..... | 9,081  | 5,163 | 2,075           | 1,796  |
| 1950..... | 8,992  | 5,247 | 2,015           | 1,683  |

There have been substantial declines in live-stock numbers from the levels of the war years. Cattle reached a peak in 1945 when there were 10,759,000 on farms. While the number in 1950 was 16 p.c. below that level, it was still considerably higher than that of 1939. Hog numbers, which reached their highest point in 1943 at 8,148,000, dropped to a low of 4,463,000 in 1948 and have since increased to 5,247,000 in 1950. The decline in sheep has been continuous since 1944 and in 1950 there were fewer sheep than recorded in any official count or estimate since Confederation.

*Western cattle on the range.*





**Poultry and Eggs.**—The estimated number of hens, cocks and chickens on farms at June 1, 1949, continued the downward trend in evidence the year before. In fact the 1949 total of 69,031,000, which was down from 69,678,000 in 1948, was the lowest since 1942. The high cost of feed, without a commensurate increase in egg prices, was the reason given by many producers for reducing their flocks. The numbers of turkeys at 2,686,400, geese at 424,300 and ducks at 517,600 were all higher than at June 1, 1948.

As a result of the reduction in the hen, cock and chicken flocks, the amount of poultry meat placed on the market in 1949 increased to 284,231,000 lb. from 249,326,000 lb. in 1948, while egg production declined to 314,488,000 doz. from 356,166,000 doz.

### *Farm Poultry-Meat and Farm-Egg Production, by Economic Areas, 1947-49*

| Economic Area and Year | Poultry-Meat Production |                    |                | Egg Production       |                    |                    |
|------------------------|-------------------------|--------------------|----------------|----------------------|--------------------|--------------------|
|                        | Marketed                | Farm-Home Consumed | Total          | Sold for Consumption | Farm-Home Consumed | Total <sup>1</sup> |
|                        | '000 lb.                | '000 lb.           | '000 lb.       | '000 doz.            | '000 doz.          | '000 doz.          |
| Maritimes....1947      | 12,140                  | 6,693              | 18,833         | 18,909               | 5,509              | 24,780             |
| 1948                   | 9,910                   | 4,289              | 14,199         | 19,902               | 5,710              | 25,959             |
| 1949 <sup>2</sup>      | 11,483                  | 4,618              | 16,101         | 18,461               | 5,804              | 24,539             |
| Que. and Ont..1947     | 127,160                 | 27,341             | 154,501        | 177,568              | 31,747             | 215,434            |
| 1948                   | 112,967                 | 21,336             | 134,303        | 167,367              | 29,130             | 201,462            |
| 1949                   | 144,341                 | 24,594             | 168,935        | 142,263              | 26,600             | 173,901            |
| Prairies.....1947      | 62,578                  | 46,766             | 109,344        | 74,831               | 23,724             | 104,416            |
| 1948                   | 52,341                  | 33,129             | 85,470         | 75,698               | 21,670             | 100,554            |
| 1949                   | 53,819                  | 32,931             | 86,750         | 67,970               | 19,690             | 91,195             |
| B.C.....1947           | 15,680                  | 3,031              | 18,711         | 24,937               | 2,810              | 29,066             |
| 1948                   | 12,515                  | 2,839              | 15,354         | 24,327               | 2,655              | 28,191             |
| 1949                   | 10,165                  | 2,280              | 12,445         | 21,471               | 2,289              | 24,853             |
| <b>Totals...1947</b>   | <b>217,558</b>          | <b>83,831</b>      | <b>301,389</b> | <b>296,245</b>       | <b>63,790</b>      | <b>373,696</b>     |
| 1948                   | <b>187,733</b>          | <b>61,593</b>      | <b>249,326</b> | <b>287,294</b>       | <b>59,165</b>      | <b>356,166</b>     |
| 1949 <sup>2</sup>      | <b>219,808</b>          | <b>64,423</b>      | <b>284,231</b> | <b>250,165</b>       | <b>54,383</b>      | <b>314,488</b>     |

<sup>1</sup> Includes eggs sold for hatching and used for hatching on farms. Newfoundland.

<sup>2</sup> Exclusive of

**Dairying.**—The growing importance of Canada's domestic market for dairy products is reflected in the position of the dairy industry in 1950. This change in the economic situation was due in part to the shortage of dollars in sterling areas which limited exports from Canada and inversely to the increased domestic demand for dairy products. The decline in the export movement gave rise to relatively large stocks of butter, cheese and concentrated milk products at the beginning of the year, and a consequent decline in prices. As the season advanced, lower prices for manufactured dairy products had a twofold effect. Production, principally butter, cheese and skim-milk powder, was reduced and the domestic disappearance of evaporated whole milk and skim milk powder increased. Toward the end of the summer more butter was also used in domestic households. The per capita disappearance which had shown a decline of 3½ lb. in the January-August period of 1949 as compared with the same months of 1948, due in part to the introduction of margarine, showed a fractional gain in the January-August period of 1950.

*Export Contracts and Prices.*—The United Kingdom contract for cheese for the calendar year 1950 covered a maximum of 85,000,000 lb. and a minimum of 70,000,000 lb. at 25 cents per lb. f.o.b. Canadian Seaboard. A Canadian Government subsidy of 3 cents per lb. brought the total price to approximately 28 cents or  $26\frac{3}{4}$  cents f.o.b. factory, as compared with 30 cents in 1949. Butter prices declined on May 1, 1950, when the Government's support price of 58 cents f.o.b. Montreal was reduced to 53 cents. Cheese prices compared closely to the export price in the Eastern Provinces, but advanced in Western Canada due to the requisitioning of Ontario and Quebec cheese for export. Butter prices remained at the support level until August when fractional increases occurred, due to the cost of storage. Based on reports from about 150 markets in Canada, it was revealed that farmers obtained an average of \$3.80 per hundred for fluid milk which was 2 cents per hundred above that of the previous year. Retail prices in August ranged from 17 to 19 cents but advanced about 1 cent per quart in some markets later in the year.

*Milk Production.*—The quantity of milk produced in 1949 was estimated at 16,800,000,000 lb., approximately 1,000,000,000 lb. below the high point reached in 1945. Preliminary figures indicate little change in 1950 compared with 1949.

*Butter and Cheese Production.*—A general decline in the production of butter and cheese developed in the early spring of 1950. During the January-September period the output of cheddar cheese was 13 p.c. and the creamery butter make 4 p.c. below that of the same period of 1949. In 1949 the total production of butter (creamery, dairy and whey butter) amounted to approximately 334,000,000 lb. compared with the all-time record of 371,000,000 lb. in 1941. The production of cheddar cheese in 1949 was 114,000,000 lb. Factory cheese other than cheddar accounted for an additional 4,247,000 lb. and the output of cottage cheese amounted to 5,592,000 lb. While the 1949 output of cheddar cheese was 25,000,000 lb. above that of 1948 it fell considerably below the 1941 make which amounted to 206,000,000 lb.

*Concentrated Milk and Ice Cream.*—An increase of 12 p.c. in the production of evaporated whole milk during the January-September period of 1950 made a significant contribution to the output of concentrated whole-milk products which showed an increase of 9 p.c. during this period as compared with the same period of the previous year. Skim-milk powder, however, declined 16 p.c. so that the total output of concentrated milk products was only 4 p.c. above the 1949 level. The output of evaporated whole milk in 1949 amounted to approximately 232,000,000 lb. out of a total of 273,000,000 lb. of all whole-milk products combined; and skim-milk powder accounted for 64,000,000 lb. out of a total of 97,000,000 lb. of concentrated milk by-products. The manufacture of ice cream was reduced by 7 p.c. in the three-quarter period of 1950, due principally to an abnormally cool summer.

*Income and Values.*—For the second year in succession there has been a reduction in farm income from dairying. In 1949 farmers received \$350,000,000 from dairying, being \$37,000,000 below that of 1948. During



*The dairy industry is of tremendous importance in Canada. The 3,500,000 milk cows on farms are valued at approximately \$562,000,000 and the average yield per cow is 4,600 lb. annually. Not all farmers achieve the ideal of herd and housing conditions portrayed here, but rigid regulations keep the standards high. The main dairying districts are southern Ontario and the Eastern Townships of Quebec.*





the January-August period of 1950 farm cash income from dairying fell 7 p.c. and prices of all products but fluid milk showed declines. The total farm value of milk production in 1949 amounted to \$457,000,000 as compared with the exceptionally high level of \$506,000,000 a year previous. Dairy products valued at the factory in 1949 amounted to \$482,000,000 as compared with \$506,448,000 in 1948.

### *Dairy Production, by Economic Areas, 1947-49*

| Economic Area<br>and Year        | Milk             |                   | Milk Products  |               |                            |               |
|----------------------------------|------------------|-------------------|----------------|---------------|----------------------------|---------------|
|                                  | Fluid<br>Sales   | Total<br>Milk     | Butter         |               | Cheddar<br>Cheese          | Ice<br>Cream  |
|                                  |                  |                   | Creamery       | Dairy         |                            |               |
|                                  | '000 lb.         | '000 lb.          | '000 lb.       | '000 lb.      | '000 lb.                   | '000 gal.     |
| Maritimes.....1947               | 234,513          | 1,059,276         | 17,260         | 8,014         | 1,407                      | 2,177         |
| 1948                             | 226,316          | 1,079,889         | 17,854         | 8,881         | 1,466                      | 2,557         |
| 1949 <sup>1</sup>                | 229,553          | 1,091,862         | 18,778         | 7,582         | 1,338                      | 2,573         |
| Que. and Ont.. 1947              | 2,943,767        | 10,733,941        | 174,531        | 16,303        | 113,148                    | 14,339        |
| 1948                             | 2,838,889        | 10,348,460        | 171,510        | 19,854        | 81,756                     | 15,151        |
| 1949                             | 2,873,262        | 10,514,065        | 167,113        | 15,557        | 106,972                    | 14,617        |
| Prairies.....1947                | 659,817          | 4,819,484         | 94,722         | 30,281        | 6,864                      | 4,438         |
| 1948                             | 639,331          | 4,668,437         | 91,939         | 32,511        | 5,372                      | 5,006         |
| 1949                             | 653,436          | 4,531,290         | 88,177         | 28,455        | 4,981                      | 5,152         |
| B.C.....1947                     | 324,442          | 628,087           | 4,439          | 1,697         | 533                        | 2,487         |
| 1948                             | 320,381          | 633,576           | 4,326          | 1,599         | 431                        | 2,492         |
| 1949                             | 327,502          | 651,647           | 4,589          | 1,258         | 496                        | 2,387         |
| <b>Totals<sup>2</sup>...1947</b> | <b>4,162,539</b> | <b>17,240,788</b> | <b>290,952</b> | <b>56,295</b> | <b>121,952<sup>3</sup></b> | <b>23,441</b> |
| <b>1948</b>                      | <b>4,024,917</b> | <b>16,730,362</b> | <b>285,629</b> | <b>62,845</b> | <b>89,025<sup>3</sup></b>  | <b>25,206</b> |
| <b>1949<sup>1</sup></b>          | <b>4,083,753</b> | <b>16,788,864</b> | <b>278,657</b> | <b>52,852</b> | <b>113,787<sup>3</sup></b> | <b>24,729</b> |

<sup>1</sup> Exclusive of Newfoundland.

<sup>2</sup> Evaporated milk cannot be shown because of insufficient numbers of firms in all areas except Quebec and Ontario. Production for this area was 211,829,000 lb. in 1947, 201,686,000 lb. in 1948 and 179,360,000 lb. in 1949.

<sup>3</sup> Total cheese production amounted to 125,571,000 lb. in 1947, 94,678,000 lb. in 1948 and 118,754,000 lb. in 1949.

### *Special Crops*

**Fruit.**—Fruit is produced on a commercial scale in Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. Some cultivated fruits are grown in a limited way in the other provinces but no annual estimates of production are attempted. In addition to the cultivated fruits large quantities of native berries are harvested, particularly in Eastern Canada, but no complete data on production are available.

In British Columbia a winter of exceptionally low temperatures and heavy snow caused extensive damage to the fruit trees, particularly in the Okanagan Valley. All fruit suffered to some extent but cherry, peach and apricot trees received the most extensive damage. Not only were the 1950 crops greatly reduced but the tree injury will affect the size of the crops for some years to come. The crops in Eastern Canada were affected by backward spring weather and a cool summer with frequent rains. Disease reduced the marketable crops of the tree fruits throughout the area and in addition a severe wind storm in Nova Scotia in August caused further damage to the apple crop in that Province. The Ontario grape crop, on the other hand, reached record levels.



*The Okanagan Valley of British Columbia is one of the important fruit-growing districts of Canada. Here apples, plums, peaches, apricots, cherries, strawberries, raspberries and other small fruits are grown in abundance.*

### *Values of Fruits Produced, 1946-49, with Averages, 1941-45*

| Fruit                       | Average<br>1941-45 | 1946              | 1947              | 1948              | 1949              |
|-----------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
|                             | \$                 | \$                | \$                | \$                | \$                |
| Apples.....                 | 15,268,000         | 27,196,000        | 22,840,000        | 22,631,000        | 19,684,000        |
| Pears.....                  | 1,523,000          | 2,278,000         | 2,178,000         | 2,185,000         | 2,436,000         |
| Plums and prunes....        | 1,067,000          | 1,755,000         | 1,471,000         | 1,889,000         | 1,387,000         |
| Peaches.....                | 3,495,000          | 5,356,000         | 4,128,000         | 4,953,000         | 4,987,000         |
| Apricots.....               | 258,000            | 446,000           | 327,000           | 629,000           | 810,000           |
| Cherries.....               | 1,636,000          | 2,113,000         | 2,128,000         | 2,863,000         | 3,436,000         |
| Totals, Tree Fruits..       | 23,247,000         | 39,144,000        | 33,072,000        | 35,150,000        | 32,740,000        |
| Strawberries.....           | 2,819,000          | 4,498,000         | 5,404,000         | 6,821,000         | 5,662,000         |
| Raspberries.....            | 2,271,000          | 3,364,000         | 4,354,000         | 3,279,000         | 2,614,000         |
| Grapes.....                 | 1,954,000          | 3,160,000         | 3,568,000         | 2,559,000         | 1,986,000         |
| Loganberries.....           | 151,000            | 222,000           | 213,000           | 340,000           | 124,000           |
| Totals, Small Fruits..      | 7,195,000          | 11,244,000        | 13,539,000        | 12,999,000        | 10,386,000        |
| <b>Totals, All Fruits..</b> | <b>30,442,000</b>  | <b>50,388,000</b> | <b>46,611,000</b> | <b>48,149,000</b> | <b>43,126,000</b> |

The September, 1950, estimates of production with final estimates for 1949 in parentheses were: apples, 15,205,000 bu. (18,151,000 bu.); pears, 716,000 bu. (1,000,000 bu.); plums and prunes, 521,000 bu. (827,000 bu.); peaches, 1,151,000 bu. (2,011,000 bu.); apricots, 11,000 bu. (181,000 bu.); cherries, 324,000 bu. (491,000 bu.); strawberries, 22,467,000 qt. (26,251,000 qt.); raspberries, 11,021,000 qt. (10,931,000 qt.); loganberries, 866,000 lb. (877,000 lb.); and grapes, 90,685,000 lb. (51,194,000 lb.).

During the five-year period 1935-39, approximately 40 p.c. of the apple crop was exported, mainly to the United Kingdom. That market was cut off during the War and, due to the exchange situation, no sizeable shipments were made to the United Kingdom until 1949. In 1950, the British Ministry of Food contracted to buy 1,100,000 boxes of British Columbia apples and 200,000 boxes of Nova Scotia apples. In addition, it is expected that some 2,000,000 boxes will be shipped to the United States during the 1950-51 marketing season.

**Honey.**—The number of persons engaged in keeping bees again declined in 1950, continuing the trend in evidence since 1945. Prices of package bees, which are imported from the United States to replace over-winter losses, have continued to rise and at the same time prices received for honey have dropped steadily. As a result, the small part-time operators have found it impossible to continue to operate at a profit and their numbers have rapidly declined. On the other hand the large operators have found it advantageous to increase their numbers of colonies to supply the market formerly held by the small apiaries. Production in 1950 (October) is estimated at 30,717,000 lb., 7 p.c. below the 1949 level of 33,204,000 lb. Estimates of production, by provinces, with 1949 figures in parentheses are: Prince Edward Island, 55,000 lb. (63,000 lb.); Nova Scotia, 78,000 lb. (103,000 lb.); New Brunswick, 72,000 lb. (140,000 lb.); Quebec, 2,505,000 lb. (3,709,000 lb.); Ontario, 10,157,000 lb. (10,809,000 lb.); Manitoba, 6,282,000 lb. (5,586,000 lb.); Saskatchewan, 5,129,000 lb. (6,000,000 lb.); Alberta, 5,300,000 lb. (5,830,000 lb.); British Columbia, 1,139,000 lb. (964,000 lb.).

**Maple Products.**—Suitable spring weather in 1950 resulted in a crop of maple sugar and syrup (expressed in terms of syrup) amounting to 2,983,000 gal. as compared with 2,485,000 gal. in 1948. However, some difficulty was experienced by Quebec producers in marketing their crop. Much sugar and syrup is exported each year to the United States, the bulk of which comes from the Eastern Townships of Quebec. In the other provinces the crop is nearly all sold locally direct to the consumers. Production of maple syrup in 1950 with comparable data for 1949 in parentheses was: Nova Scotia, 7,000 gal. (6,000 gal.); New Brunswick, 14,000 gal. (7,000 gal.); Quebec, 2,273,000 gal. (1,894,000 gal.); Ontario, 507,000 gal. (399,000 gal.). Production of maple sugar in 1950 with comparable data for 1949 in parentheses was: Nova Scotia, 13,000 lb. (13,000 lb.); New Brunswick, 86,000 lb. (81,000 lb.); Quebec, 1,692,000 lb. (1,651,000 lb.); Ontario, 33,000 lb. (42,000 lb.).

**Sugar Beets.**—Despite unfavourable weather, estimates of sugar-beet production for 1950 (Sept. 14) are placed at record levels. Increases in acreage were reported in all producing provinces with the greatest percentage increase occurring in Quebec. Alberta production was affected by heavy frost. Good rains increased the prospects for the best crop in Ontario and Manitoba



though lack of sunshine may have reduced the sugar content of the roots. The acreages, by provinces, in 1950 with data for 1949 in parentheses was: Quebec, 11,500 acres (6,200); Ontario, 34,200 acres (30,000); Manitoba, 20,700 acres (15,600); and Alberta, 36,200 acres (32,300). Processing plants are located at St. Hilaire, Que.; Wallaceburg and Chatham, Ont.; Fort Garry, Man.; and Taber and Picture Butte, Alta.

**Seeds.**—The latest information available on the production of seeds is for the year 1949.

### *Seed Production, by Kinds, 1948 and 1949*

| Kind                  | 1948      | 1949      | Kind               | 1948       | 1949      |
|-----------------------|-----------|-----------|--------------------|------------|-----------|
|                       | '000 lb.  | '000 lb.  |                    | lb.        | lb.       |
| Hay and Pasture—      |           |           | Carrot.....        | 54,600     | 52,100    |
| Alfalfa.....          | 21,385    | 8,718     | Cauliflower.....   | 440        | 700       |
| Red clover.....       | 16,086    | 4,855     | Corn.....          | 236,500    | 225,100   |
| Alsike.....           | 9,400     | 2,564     | Cucumber.....      | 18,300     | 17,500    |
| Sweet clover.....     | 28,840    | 21,754    | Leek.....          | 800        | 850       |
| Timothy.....          | 5,634     | 5,108     | Lettuce.....       | 14,700     | 27,050    |
| Brome grass.....      | 7,944     | 6,050     | Mangel.....        | 133,900    | 72,680    |
| Crested wheat grass   | 676       | 300       | Muskmelon.....     | 1,580      | 880       |
| Creeping red fescue.. | 1,558     | 1,200     | Onion.....         | 39,700     | 69,000    |
| Canadian blue grass   | 250       | 140       | Parsnip.....       | 3,200      | 3,320     |
| Kentucky blue grass   | 580       | 80        | Pea.....           | 14,154,000 | 5,013,000 |
| Western rye grass..   | 115       | 123       | Pepper.....        | 190        | 230       |
| Bent grass.....       | 4         | 2         | Pumpkin.....       | 3,300      | 1,900     |
| Vegetable and Field   |           |           | Radish.....        | 13,600     | 21,900    |
| Root—                 | lb.       | lb.       | Spinach.....       | 11,800     | 13,400    |
| Asparagus.....        | 4,120     | 20,240    | Squash and marrow. | 6,520      | 3,800     |
| Bean.....             | 2,366,200 | 1,787,650 | Sugar beet.....    | 296,300    | 402,800   |
| Beet.....             | 18,600    | 18,100    | Swede.....         | 23,900     | 57,000    |
| Cabbage.....          | 1,320     | 1,940     | Swiss chard.....   | 500        | —         |
|                       |           |           | Tomato.....        | 2,520      | 3,780     |

*Climatic conditions of southern British Columbia are ideal for the production of flower seeds.*





Canada's forests (exclusive of Newfoundland) cover an area of 1,274,840 sq. miles, or 37 p.c. of the total land area of the country, but a considerable part of these vast forests is not suitable for commercial operations, either because it is too difficult and expensive to reach or because the tree growth is not of satisfactory size and quality. The present accessible productive portion of the forest covers 473,000 sq. miles and it is from this area that the whole output of sawlogs, pulpwood, fuelwood and other primary products is obtained. About 229,000 sq. miles of forest, classed as productive but not at present accessible, form a reserve for the future when transportation systems may be more highly developed.

The inaccessible and unproductive forest areas, while not of immediate value in terms of timber resources, are still of great economic importance in the broad concept of land utilization. Forest cover aids in protecting agricultural lands against drought and erosion; protects water catchment areas and assures water supplies; furnishes protection and habitat for game and fur-bearing animals; and provides recreation areas.

By far the larger part of the world demand for wood is for softwood, or coniferous species. Canada possesses the principal reserves of softwoods within the Commonwealth, and these include large supplies of the most desirable varieties—spruces, Douglas fir, western hemlock, western red cedar, and white, red and other pines. In addition, the eastern provinces furnish hardwoods, such as birches, maples and elms, which are particularly useful for special purposes.

The total stand of timber of merchantable size is estimated to be 302,458,000,000 cu. ft. of which 189,051,000,000 cu. ft. is accessible. Expressed in commercial terms, the accessible timber is made up of 242,072,000,000 bd. ft. of logs in trees large enough to produce sawlogs and 1,686,834,000 cords of smaller material suitable for pulpwood, fuelwood, posts, mining timbers, etc.

The entry of Newfoundland into Confederation on Mar. 31, 1949, resulted in an appreciable increase in Canada's forested area. It is estimated that about 16,000 sq. miles of the Island of Newfoundland is covered with forest, but no estimate is as yet available of the forest resources of Labrador.

If the forests are not to be impaired, the volumes of wood removed each year to serve useful purposes and the volumes burned or destroyed by pests must be replaced by annual growth. The average annual rate of depletion during the ten years 1939-48, was 3,416,239,000 cu. ft. of which 79 p.c. was utilized, 7 p.c. was destroyed by forest fires and 14 p.c. by insects and disease. Of 2,687,973,000 cu. ft. utilized, 39 p.c. took the form of logs and bolts, 30 p.c. was pulpwood, 27 p.c. fuelwood and the remaining 4 p.c. miscellaneous products. Approximately 7 p.c. of the utilization was exported in unmanufactured form.

The extraordinary demand for forest products which prevailed during the war and post-war years, continued during 1950. Requirements for housing and other forms of construction at home, together with exports, provided a stimulus for high production. Pulp and paper production continued to increase and exports of paper reached a new peak in 1950.



## *Forest Administration*

The forest resources of Canada as a whole are owned and administered by the provinces. The Federal Government, however, is responsible for the administration of those of the National Parks, Forest Experiment Stations, and Yukon and the Northwest Territories.

The general policy of both the Federal Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system the State retains the ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage; ground-rents and fire-protection taxes are collected annually. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada.

Forest research activities are assuming great importance. The Forestry Branch of the Department of Resources and Development operates five forest experiment stations with a total area of 227 sq. miles, where investigations of the underlying principles governing the growth of forests and improvement in the rate of increment are made and practical methods of management tested. Specialized work in silvicultural research and problems connected with forest utilization are also carried on, while the Department of Agriculture conducts research work in the fields of forest pathology and forest entomology.

Provincial Governments and industry are also showing increasing interest in programs to stimulate the production of forest products and at the same time perpetuate Canada's forest resources. The need for long-term planning, selective cutting and reforestation has been generally recognized. In recent years, too, provincial forest services have been active in their programs of forest inventory. The work is being greatly facilitated by the use of aerial photography supported by field sampling.

## *Forest Utilization*

**Operations in the Woods.**—The principal products of the forest consist of logs and bolts which constitute the raw material for sawmills, veneer mills, wood distillation and other plants, and of pulpwood which goes to the pulp-mills. Some logs and bolts are exported in the unmanufactured state, but most pulpwood is processed in barking mills before it is shipped to foreign countries. Other products, such as fuelwood, poles and piling, pitprops, hewn railway ties, and fence posts and rails, are finished in the woods ready for use or export.

It has been estimated that operations in the woods in Canada in 1948 gave employment during the logging season amounting to 44,467,000 days, and distributed \$347,000,000 in wages and salaries. Except in British Columbia, where logging operations are fairly uniform throughout the year, work in the woods comes at a time when employment in other industries is at the lowest ebb. The steadying effect of this industry on the employment situation and the fact that it provides a source of income to farmers during the winter season are not always fully appreciated.



**A west coast sawmill.**

### *Value of Woods Operations, by Products, 1944-48*

| Products                       | 1944               | 1945               | 1946               | 1947               | 1948               |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                | \$                 | \$                 | \$                 | \$                 | \$                 |
| Logs and bolts.....            | 115,788,036        | 120,682,306        | 150,933,681        | 205,259,855        | 215,108,932        |
| Pulpwood.....                  | 124,363,926        | 146,172,701        | 183,085,359        | 237,488,741        | 284,656,819        |
| Firewood.....                  | 44,332,748         | 45,193,219         | 49,544,756         | 46,206,336         | 49,535,855         |
| Hewn railway ties....          | 1,289,165          | 1,339,920          | 1,131,951          | 1,177,806          | 1,303,596          |
| Poles.....                     | 5,217,255          | 5,663,793          | 5,302,324          | 8,404,809          | 13,116,480         |
| Round mining timber.           | 3,509,015          | 6,437,074          | 12,149,767         | 10,082,458         | 10,268,435         |
| Fence posts.....               | 2,216,585          | 2,690,569          | 3,091,268          | 2,832,783          | 2,489,286          |
| Wood for distillation.         | 887,260            | 687,102            | 452,196            | 544,746            | 497,286            |
| Fence rails.....               | 513,135            | 367,741            | 605,503            | 628,804            | 591,484            |
| Miscellaneous<br>products..... | 3,453,698          | 5,090,476          | 6,972,509          | 7,177,790          | 8,726,895          |
| <b>Totals.....</b>             | <b>301,570,823</b> | <b>334,324,901</b> | <b>413,269,314</b> | <b>519,804,128</b> | <b>586,295,068</b> |

**Sawn Lumber.**—The lumber industry comprises not only the output of mills sawing planks and boards and other long lumber but also the products of shingle, tie, spoolwood, lath, stave and heading mills, and of mills for the cutting-up and barking of pulpwood. Wood sawn into lumber consists chiefly of conifers; spruce, Douglas fir, hemlock, white pine, cedar and the other softwoods account for about 95 p.c. and only 5 p.c. is cut from hardwoods.





The forestry observation tower is a familiar sight on vantage points overlooking wooded areas.

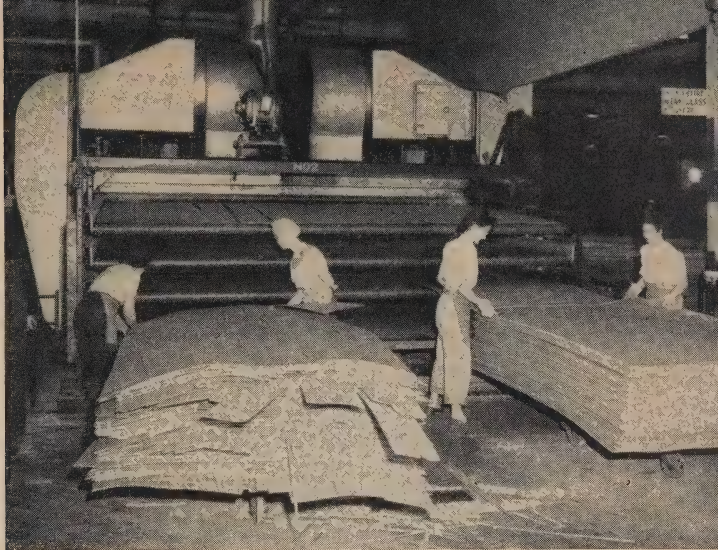
A forest ranger on field work. ▶



Constant vigilance is necessary to protect Canada's forests from damage by fire, insects and disease.



Feeding veneer into the dryers at a plywood factory.



In 1948, the gross value of production for the industry as a whole showed an increase of about 2 p.c. over the total for 1947. The 1948 figure includes the following commodities with their valuations: shingles (\$24,470,746); processed pulpwood (\$8,746,852); box shooks (\$6,516,261); sawn ties (\$11,255,897); spoolwood (\$2,431,473); staves (\$1,607,241); lath (\$1,338,534); heading (\$448,214); pickets (\$482,016); and other wood products and by-products (\$11,119,700).

Over 42 p.c. of the sawn lumber produced in 1948 was exported and the remainder was used for structural work in Canada or went into Canadian wood-using industries as the raw material in the manufacture of sash, doors and planing-mill products, furniture, boxes, cooperage, etc.

### Production of Sawn Lumber and All Sawmill Products, 1948

| Province or Territory                | Sawn Lumber Production |                    | Total Sawmill Products |
|--------------------------------------|------------------------|--------------------|------------------------|
|                                      | '000 ft. b.m.          | \$                 | \$                     |
| Prince Edward Island.....            | 11,035                 | 491,035            | 551,491                |
| Nova Scotia.....                     | 319,403                | 15,180,381         | 16,743,884             |
| New Brunswick.....                   | 290,434                | 15,131,423         | 17,510,574             |
| Quebec.....                          | 1,095,719              | 58,920,212         | 69,957,892             |
| Ontario.....                         | 760,198                | 46,937,848         | 58,827,577             |
| Manitoba.....                        | 60,846                 | 2,780,968          | 3,017,291              |
| Saskatchewan.....                    | 91,228                 | 3,558,784          | 3,825,161              |
| Alberta.....                         | 339,574                | 12,649,919         | 13,964,169             |
| British Columbia.....                | 2,937,410              | 184,998,056        | 224,664,156            |
| Yukon and Northwest Territories..... | 2,951                  | 201,912            | 205,277                |
| <b>Totals.....</b>                   | <b>5,908,798</b>       | <b>340,850,538</b> | <b>409,267,472</b>     |

**Pulp and Paper.**—Extensive pulpwood resources and widely distributed water powers, together with the proximity of the United States markets, have been largely responsible for the remarkable development of the Canadian pulp and paper industry. In 1949 (Newfoundland is included for the full year) the pulp and paper industry ranked highest among the industries of Canada in

net value of production and salary and wage distribution, while the gross value of its products reached the unprecedented total of \$836,148,393. In these comparisons only the manufacturing stages of the industry are considered, no allowance being made for employment furnished, payrolls, or production of operations in the woods.

There are three classes of mills in this industry; mills making pulp only, combined pulp and paper mills, and mills making paper only. In 1949, the 96 mills making pulp, 32 of which made pulp only, produced 7,852,998 tons of pulp valued at \$445,138,494. About 76 p.c. in quantity was made in combined mills and used by them in papermaking and about 24 p.c. was made for sale in Canada and for export.

Pulping methods are continually changing. Recently the utilization of wood-waste has been increasing. Several new mills consume little or no fresh pulpwood but use chips obtained from sawmill slabs and edgings or from veneer waste. Greater use of hardwoods is also noticeable.

The volume of pulp and paper produced in 1949 was the highest ever recorded and new peaks were also reached for gross and net value of production, employment, salaries and wages paid. Production figures from 1940 are:—

| <i>Year</i> | <i>Gross<br/>Production</i> | <i>Net<br/>Production</i> | <i>Year</i>             | <i>Gross<br/>Production</i> | <i>Net<br/>Production</i> |
|-------------|-----------------------------|---------------------------|-------------------------|-----------------------------|---------------------------|
|             | \$                          | \$                        |                         | \$                          | \$                        |
| 1940.....   | 298,034,843                 | 158,230,575               | 1945.....               | 398,804,515                 | 180,401,885               |
| 1941.....   | 334,726,175                 | 174,852,041               | 1946.....               | 527,814,916                 | 258,164,578               |
| 1942.....   | 336,697,277                 | 164,500,420               | 1947.....               | 706,971,628                 | 356,084,900               |
| 1943.....   | 344,411,614                 | 164,244,088               | 1948.....               | 825,857,664                 | 412,770,470               |
| 1944.....   | 369,846,086                 | 174,492,103               | 1949 <sup>1</sup> ..... | 836,148,393                 | 423,375,527               |

<sup>1</sup> Includes Newfoundland production for the full year.

Production of pulp during the past eight years is given in the following tables.



A 1,600-ft. conveyor constructed by an Ontario paper company to carry pulpwood from the slasher house to the paper mill.

## Pulp Production, Mechanical and Chemical, 1942-49

| Year                    | Mechanical Pulp |             | Chemical Fibre |             | Total Production <sup>1</sup> |             |
|-------------------------|-----------------|-------------|----------------|-------------|-------------------------------|-------------|
|                         | Quantity        | Value       | Quantity       | Value       | Quantity                      | Value       |
|                         | tons            | \$          | tons           | \$          | tons                          | \$          |
| 1942.....               | 3,260,097       | 64,801,837  | 2,246,438      | 126,208,457 | 5,606,461                     | 192,145,062 |
| 1943.....               | 2,998,913       | 63,426,919  | 2,188,026      | 130,010,210 | 5,272,830                     | 194,519,152 |
| 1944.....               | 3,076,296       | 71,668,673  | 2,109,169      | 138,140,452 | 5,271,137                     | 211,041,412 |
| 1945.....               | 3,341,920       | 86,375,001  | 2,154,267      | 144,084,969 | 5,600,814                     | 231,873,122 |
| 1946.....               | 3,997,848       | 111,514,231 | 2,427,087      | 172,756,674 | 6,615,410                     | 287,624,227 |
| 1947.....               | 4,275,269       | 147,423,552 | 2,755,977      | 251,273,372 | 7,253,671                     | 403,853,235 |
| 1948.....               | 4,413,513       | 168,343,496 | 2,997,281      | 310,338,614 | 7,675,079                     | 485,966,164 |
| 1949 <sup>2</sup> ..... | 4,718,806       | 166,591,741 | 2,891,418      | 272,355,430 | 7,852,998                     | 445,138,494 |

<sup>1</sup> Includes screenings and unspecified pulps.  
for the full year.

<sup>2</sup> Includes Newfoundland production

## Pulp Production, by Chief Producing Provinces, 1942-49

| Year      | Quebec    |             | Ontario   |             | British Columbia |            |
|-----------|-----------|-------------|-----------|-------------|------------------|------------|
|           | Quantity  | Value       | Quantity  | Value       | Quantity         | Value      |
|           | tons      | \$          | tons      | \$          | tons             | \$         |
| 1942..... | 2,896,440 | 97,632,408  | 1,518,967 | 51,936,704  | 481,294          | 16,243,737 |
| 1943..... | 2,617,403 | 94,054,176  | 1,490,966 | 54,818,046  | 450,009          | 17,543,397 |
| 1944..... | 2,767,081 | 105,042,991 | 1,316,365 | 54,934,993  | 489,690          | 19,739,476 |
| 1945..... | 2,887,176 | 114,197,036 | 1,468,682 | 62,596,260  | 520,571          | 21,998,381 |
| 1946..... | 3,460,853 | 140,930,891 | 1,837,975 | 84,049,038  | 520,779          | 24,216,820 |
| 1947..... | 3,751,579 | 194,805,327 | 2,100,237 | 122,382,058 | 593,165          | 37,720,328 |
| 1948..... | 3,902,072 | 227,425,545 | 2,226,124 | 153,870,832 | 688,209          | 49,220,655 |
| 1949..... | 3,698,401 | 196,568,691 | 2,138,444 | 140,662,434 | 666,542          | 36,737,722 |

The 64 combined mills and the 27 mills making paper only produced 6,539,969 tons of paper and paperboard in 1949. Of that total, newsprint made up 79 p.c.; paperboard 12 p.c.; book and writing paper 3 p.c.; wrapping paper 3 p.c.; and tissues and miscellaneous papers the remainder.

Newsprint production has increased considerably during the past decade, even exceeding rated capacity during the four latest years. During 1949 Newfoundland production entered into the picture but otherwise Canadian mills have depended on increased efficiency for added production. Newsprint production during the first eight months of 1950 increased 23,400 tons over the same period in 1949.

## Newsprint and Total Paper Production, 1942-49

| Year                    | Newsprint Paper |             | Total Paper |             |
|-------------------------|-----------------|-------------|-------------|-------------|
|                         | Quantity        | Value       | Quantity    | Value       |
|                         | tons            | \$          | tons        | \$          |
| 1942.....               | 3,257,180       | 147,074,109 | 4,231,767   | 230,269,512 |
| 1943.....               | 3,046,442       | 152,962,868 | 3,966,344   | 234,036,152 |
| 1944.....               | 3,039,783       | 165,655,165 | 4,044,376   | 255,545,841 |
| 1945.....               | 3,324,033       | 189,023,736 | 4,359,576   | 282,837,614 |
| 1946.....               | 4,162,158       | 280,809,610 | 5,347,118   | 396,956,390 |
| 1947.....               | 4,474,264       | 355,540,669 | 5,775,082   | 507,101,277 |
| 1948.....               | 4,640,336       | 402,099,718 | 6,063,646   | 582,346,842 |
| 1949 <sup>1</sup> ..... | 5,187,206       | 467,976,343 | 6,539,969   | 641,459,838 |

<sup>1</sup> Includes Newfoundland production for the full year.

Exports of newsprint in 1949 (including exports for Newfoundland for the full year) amounted to 4,789,296 tons valued at \$440,044,067 and again ranked first among the exports of Canada.





## ★ Mines and Minerals

The mining industry in Canada, in terms of contribution to the national income, ranks second to agriculture among the primary extractive industries. In 1949 the mining industry's output, which comprised 66 different mineral products compared with about half that number 25 years ago, reached a peak value of \$901,000,000. Canada ranked first in world production of nickel, asbestos and the platinum metals; second in aluminum (from imported ore), zinc, gold, cadmium, selenium, tellurium and, probably, radium and uranium; third in silver; and fourth in lead, copper and cobalt.

The strength the Canadian mining industry has acquired in metallic minerals, which in 1949 accounted for 60 p.c. of the total value of mineral output, is reflected in Canada's export trade. Including the credit of \$138,900,000 gold provided in 1949 in Canada's current account with the United States, exports of non-ferrous metals (excluding aluminum) and their products realized \$471,500,000, more than 90 p.c. of which was in raw or partly manufactured materials. This was just over 15 p.c. of the value of all exports in that year. On a value basis, nickel, copper, zinc and lead ranked among the first thirteen commodities exported.

The outlook for substantial further progress in the mining industry is very encouraging. A very large portion of the area of Canada offers little in the way of agricultural and forestry resources, but sufficient mineral wealth has been revealed to give some idea of the possible value. The use of aircraft and the availability of superior prospecting equipment has changed the outlook for huge tracts of land that, because of their inaccessibility, have been regarded as waste areas even though their geological structure has been known to be favourable to the finding of minerals.

One of the most important recent developments is the changing position as regards iron. This originated with the discovery of high-grade hematite at Steep Rock Lake in Ontario and is continuing with the preparations for the development of immense deposits of high-grade ore on the Quebec-Labrador boundary.

Another development of tremendous economic importance to Canada is the greatly increased output of oil as a result of the discovery of the Leduc field near Edmonton, Alta., early in 1947, and of other fields since then. The whole oil position of Canada and, perhaps, of the North American Continent will be greatly altered. A pipe line is under construction from Edmonton to Lakehead at Superior, Wis. (*see pp. 35-41*), and there is a possibility that Canada will become ultimately one of the world's major producers of oil, exporting instead of importing that vital mineral.

Other significant developments include: (1) The discovery of what is probably the largest known single source of titanium in the world at Lake Allard, Que., near the north shore of the St. Lawrence River, where over 200,000,000 tons of unusually pure ilmenite have been proved, and the projected production from it of titanium dioxide and iron and later of titanium metal. This development will constitute one of the largest undertakings in Canadian mining history. (2) Progress in the development of the Lynn

Lake copper-nickel deposits in Manitoba, where sufficient ore is expected to be found to justify railroad construction. (3) The establishment of reserves of natural gas in Alberta of such sufficiency as not only to satisfy that Province's requirements but also to permit consideration of its being piped to cities and towns outside the Province. (4) The bringing into production of a large deposit of asbestos in Ontario, which, with the output from Quebec, will ensure the leadership of Canada in the production of that mineral for years to come. (5) The discovery of occurrences of radioactive mineral on the north shore of Lake Athabaska, Sask., near the shore of Lake Superior, Ont., and at other localities.

### Provincial Distribution of Production

The more important minerals in *Newfoundland's* contribution of 2.9 p.c. to Canada's mineral production in 1949 were, on a value basis, zinc, iron ore, lead, copper, fluorspar, silver and gold. The output of fluorspar far exceeded that credited to any other part of Canada and only Ontario produced a greater quantity of iron ore.

Coal accounted for 86 p.c. of the value of *Nova Scotia's* mineral production in 1949. The balance was made up of gypsum, structural materials, barite, salt, silica brick and quartz. Nova Scotia produces about 97 p.c. of Canada's output of barite, 84 p.c. of the total output of gypsum and 32 p.c. of the coal.

*New Brunswick's* mineral resources are not large. Coal mining is carried on on a moderate scale and is by far the most important item of production. Petroleum, natural gas and gypsum are obtained in limited quantities.

*Quebec* ranks second among the provinces in mineral output and produces a wide variety of minerals. Its production in 1949 reached a peak value and made up 18 p.c. of the total mineral output of Canada. Extensive mining developments have taken place in the western part of the Province where gold, copper and zinc are recovered in large quantities with such other metals as selenium, tellurium and silver obtained as by-products. Until very recently all the asbestos mined in Canada came from the extensive and high-grade deposits in the Eastern Townships. Quebec leads also in the production of a number of other industrial non-metallics such as brucitic



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A worker in Quebec's  
open-pit asbestos mines.





*Lucky Strike Mine at Buchans, Newfoundland, where copper-lead-zinc ore is recovered at the rate of approximately 1,000 tons daily. The mine employs in the neighbourhood of 900 men.*

limestone, feldspar and iron oxides which are obtained in smaller amounts. No coal, petroleum or iron ore is mined at present in Quebec but development is under way of the huge deposits of high-grade hematite on the Quebec-Labrador boundary. Also the titanium-rich iron ore deposits of the Lake Allard district will eventually yield 500 tons of iron a day and 700 tons of titanium concentrate.

Ontario has long ranked first among the provinces in mineral production. In 1949 its output reached an all-time high and accounted for 36 p.c. of the entire Canadian mining output. Metals are the main factor in Ontario's production, forming 82 p.c. of the total mineral production in 1949 and, in fact, 49 p.c. of the total metallic production of Canada. In that year Ontario produced 57 p.c. of Canada's gold, all of the nickel and platinum metals and a good part of the copper and iron ore. In the field of non-metallics, Ontario also led in output of salt, quartz, clay products and structural materials and was the only producer of nepheline syenite and graphite.

In Manitoba's mineral output, copper, gold, zinc and silver figure prominently among the metals, gypsum and salt among the industrial minerals and cement among the structural materials. The bulk of the metals comes from the great copper-gold-zinc-silver mine at Flin Flon, which lies partly in Manitoba and partly in Saskatchewan. From this mine also comes Saskatchewan's output of metals. The leading mineral in Saskatchewan's production in

1949 was copper followed in order by zinc, coal, gold, sodium sulphate, silver and crude petroleum.

*Alberta's* mineral output is comprised almost entirely of fuels and structural materials. Alberta ranks fourth among the provinces in value of mineral production and in 1949 accounted for more than 94 p.c. of the entire Canadian output of petroleum, nearly 85 p.c. of the natural gas and over 45 p.c. of the coal. Other than fuels and structural materials, salt and a trace of gold are the only minerals produced.

Metals predominate in *British Columbia's* mineral output, accounting for 81 p.c. of the provincial total value in 1949 and for more than 20 p.c. of the value of Canada's entire metal output. British Columbia ranked third among the provinces in value of output in 1949 and was credited with all the bismuth, tin, antimony and indium produced in Canada, 83 p.c. of the lead, 79 p.c. of the cadmium, 50 p.c. of the zinc, 43 p.c. of the silver, 10 p.c. of the copper and 7 p.c. of the gold. Coal is the only fuel currently produced; the Province supplied 10 p.c. of Canada's coal output in 1949.

Gold is the leading factor in the mineral output of *Yukon*, followed by silver, lead and zinc. A small amount of coal is also mined. In the *Northwest Territories*, too, gold makes up the major part of the mineral output, a small part being credited to petroleum and natural gas. Data on the production of pitchblende products in the Territories are not available for publication.

## Statistics of Production

The mining industry in Canada had one of its best years in 1949. Increases in output tonnages of the major minerals more than offset the effects of the decline in base-metal prices and the total value of mineral production showed a substantial advance to an all-time high of \$901,000,000. This was nearly 10 p.c. higher than the \$820,000,000 for 1948, but it included data for Newfoundland for the first time. If the \$28,000,000 for the new province were excluded, the gain in value over 1948 would be reduced to \$53,000,000 or 6.5 p.c.


In physical volume of output, advances were recorded for most of the leading minerals. Zinc production increased 23 p.c., gold 17 p.c., and copper and silver over 9 p.c. each. The greatest increase was shown in the production of crude petroleum which advanced 73 p.c. over 1948. Production of coal and natural gas also reached record levels and structural materials were up 3 p.c. The only minerals to show decreases were asbestos (because of labour troubles), gypsum, lead and nickel.

The entry of Newfoundland into Confederation helped considerably in boosting the mineral output in 1949, particularly of iron ore, lead, zinc and fluorspar. The Wabana mine shipped 1,657,000 tons of iron ore and the Buchans mine shipped concentrates containing 18,608 tons of lead, 3,617 tons of copper, 32,000 tons of zinc and 585,026 oz. of silver. Fluorspar production totalled 58,077 tons.

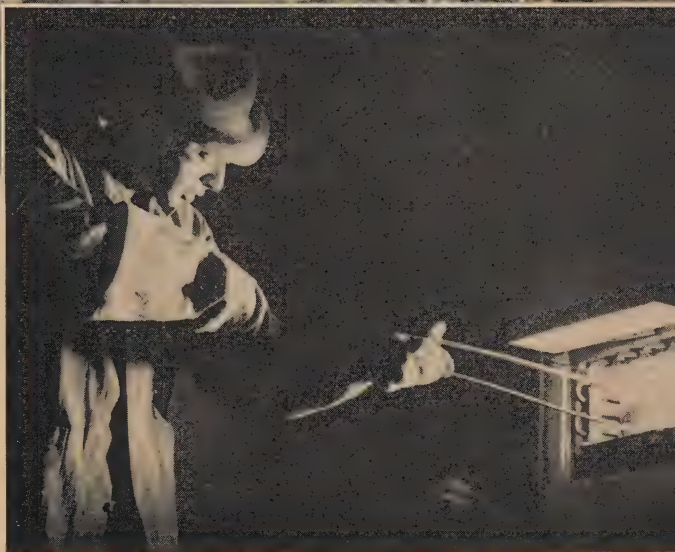
In the second quarter of 1949 the market prices for refined copper, lead and zinc fell off rather abruptly and though they recovered considerably during the third and fourth quarters, the average prices for the year were lower. Despite this, the value of all metals recovered in 1949 was 10 p.c. above the corresponding figure for 1948 and the total of \$539,000,000 was,






  
*Flin Flon, a town of 9,000 persons on the northern Manitoba - Saskatchewan boundary is one of the largest producers of zinc and copper on the Continent and produces in addition gold, silver, cadmium and selenium.*


  
*Assaying gold ore at the Flin Flon smelter.*



in fact, greater than for any preceding year. However, the quantities of copper, lead, zinc, nickel and gold were below the record amounts recovered in 1941-43 when the war effort was at its peak.

Gains in output values were registered for all provinces except British Columbia, Manitoba and Nova Scotia. Ontario's mines accounted for 36 p.c. of the nation's output in 1949, Quebec for 18 p.c., British Columbia 15 p.c. and Alberta 13 p.c. Nova Scotia, Saskatchewan, Newfoundland, Manitoba, New Brunswick, Northwest Territories and Yukon followed in the order named. The greatest increase during the year was in Alberta, accounted for by the tremendous advance in the output of crude petroleum.

Employment in mining was high in 1949, employees numbering approximately 116,000. Salaries and wages paid to these workers during the year totalled about \$290,000,000.



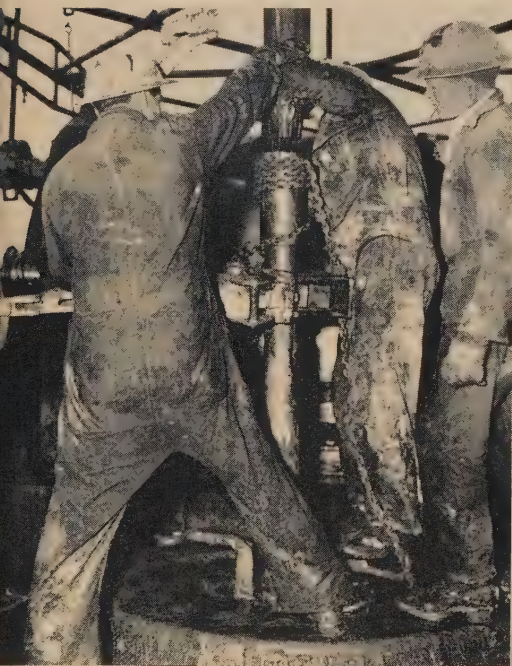
# Mineral Production, by Kinds, 1948 and 1949

| Item  | 1948        |                    | 1949        |                    |
|---|-------------|--------------------|-------------|--------------------|
|   | Quantity    | Value              | Quantity    | Value              |
|   |             | \$                 |             | \$                 |
| <b>METALLICS</b>                                  |             |                    |             |                    |
| Bismuth..... lb.                                  | 240,242     | 480,484            | 102,913     | 210,972            |
| Cadmium..... "                                    | 766,090     | 1,398,114          | 846,541     | 1,735,409          |
| Calcium..... "                                    | 895,203     | 1,723,266          | 520,609     | 1,041,218          |
| Cobalt..... "                                     | 1,544,852   | 2,029,178          | 619,065     | 952,469            |
| Copper..... "                                     | 481,463,966 | 107,159,756        | 526,913,632 | 104,719,151        |
| Gold..... fine oz.                                | 3,529,608   | 123,536,280        | 4,123,518   | 148,446,648        |
| Iron ore..... ton                                 | 1,337,244   | 7,487,611          | 3,675,096   | 21,203,907         |
| Lead..... lb.                                     | 334,501,917 | 60,344,146         | 319,549,865 | 50,488,879         |
| Nickel..... "                                     | 263,479,163 | 86,904,235         | 257,379,216 | 99,173,289         |
| Palladium, rhodium,<br>iridium, etc..... fine oz. | 148,343     | 6,295,132          | 182,233     | 8,289,915          |
| Platinum..... "                                   | 121,404     | 10,622,850         | 153,784     | 11,603,002         |
| Selenium..... lb.                                 | 390,894     | 781,788            | 318,225     | 652,361            |
| Silver..... fine oz.                              | 16,109,982  | 12,082,487         | 17,641,493  | 13,098,808         |
| Tin..... lb.                                      | 691,332     | 688,567            | 619,117     | 633,047            |
| Zinc..... "                                       | 468,327,036 | 65,237,956         | 576,524,097 | 76,372,147         |
| Other.....  | ...         | 1,462,114          | ...         | 346,036            |
| TOTALS, METALLICS.....                            | ...         | 488,233,964        | ...         | 538,967,258        |
| <b>FUELS</b>                                      |             |                    |             |                    |
| Coal..... ton                                     | 18,449,689  | 106,684,008        | 19,120,046  | 110,915,121        |
| Natural gas..... M cu. ft.                        | 58,603,269  | 15,632,507         | 60,457,177  | 11,620,302         |
| Peat..... ton                                     | 85          | 850                | 56          | 560                |
| Petroleum..... bbl.                               | 12,286,660  | 37,418,895         | 21,305,348  | 61,118,490         |
| TOTALS, FUELS.....                                | ...         | 159,736,260        | ...         | 183,654,473        |
| <b>OTHER NON-METALLICS</b>                        |             |                    |             |                    |
| Asbestos..... ton                                 | 716,769     | 42,231,475         | 574,906     | 39,746,072         |
| Barite..... "                                     | 95,747      | 1,073,380          | 47,138      | 557,662            |
| Feldspar..... "                                   | 54,851      | 564,437            | 948         | 428,502            |
| Fluorspar..... "                                  | 11,340      | 344,834            | 6,477       | 1,592,908          |
| Graphite..... "                                   | 2,539       | 239,931            | 2,147       | 212,496            |
| Gypsum..... "                                     | 3,216,809   | 5,548,245          | 3,014,249   | 5,423,690          |
| Magnesitic dolomite and<br>brucite.....           | ...         | 1,724,489          | ...         | 1,536,200          |
| Mica..... lb.                                     | 7,902,303   | 219,948            | 3,490,556   | 108,458            |
| Nepheline syenite..... ton                        | 74,386      | 506,462            | 78,783      | 623,002            |
| Peat moss..... "                                  | 89,800      | 2,767,878          | 80,249      | 2,376,849          |
| Quartz..... "                                     | 2,017,262   | 2,082,573          | 1,722,476   | 1,588,531          |
| Salt..... "                                       | 741,261     | 4,836,028          | 749,015     | 5,566,725          |
| Sodium sulphate..... "                            | 153,698     | 2,136,276          | 120,259     | 1,614,731          |
| Sulphur..... "                                    | 229,463     | 1,836,358          | 261,871     | 2,039,384          |
| Other.....  | ...         | 1,039,081          | ...         | 1,170,006          |
| TOTALS, OTHER NON-METALLICS                       | ...         | 67,151,395         | ...         | 64,585,216         |
| <b>STRUCTURAL MATERIALS</b>                       |             |                    |             |                    |
| Clay products (brick, tile,<br>etc.).....         | ...         | 17,629,048         | ...         | 17,981,709         |
| Cement..... bbl.                                  | 14,127,123  | 28,264,987         | 15,916,564  | 32,901,936         |
| Lime..... ton                                     | 1,053,584   | 10,655,062         | 1,018,823   | 11,309,820         |
| Sand and gravel..... "                            | 68,670,863  | 30,629,596         | 63,356,308  | 31,181,541         |
| Stone..... "                                      | 11,696,643  | 17,948,553         | 13,928,039  | 20,528,073         |
| TOTALS, STRUCTURAL MATERIALS                      | ...         | 105,127,246        | ...         | 113,903,079        |
| <b>Grand Totals.....</b>                          | ...         | <b>820,248,865</b> | ...         | <b>901,110,026</b> |

# Mineral Production, by Provinces, 1947-49

| Province or Territory              | 1947        |               | 1948        |               | 1949        |               |
|------------------------------------|-------------|---------------|-------------|---------------|-------------|---------------|
|                                    | Value       | P.C. of Total | Value       | P.C. of Total | Value       | P.C. of Total |
|                                    | \$          |               | \$          |               | \$          |               |
| Newfoundland.....                  | 34,255,560  | 5.3           | 56,400,245  | 6.9           | 27,583,615  | 3.0           |
| Nova Scotia.....                   | 5,812,943   | 0.9           | 7,003,285   | 0.9           | 56,092,830  | 6.2           |
| New Brunswick.....                 | 115,151,635 | 17.9          | 152,038,867 | 18.5          | 7,134,009   | 0.8           |
| Quebec.....                        | 249,797,671 | 38.7          | 294,239,673 | 35.8          | 165,021,513 | 18.3          |
| Ontario.....                       | 18,236,763  | 2.8           | 26,081,349  | 3.2           | 323,368,644 | 35.9          |
| Manitoba.....                      | 32,594,016  | 5.1           | 34,517,208  | 4.2           | 23,839,638  | 2.6           |
| Saskatchewan.....                  | 67,432,270  | 10.5          | 93,211,229  | 11.4          | 36,054,536  | 4.0           |
| Alberta.....                       | 116,772,621 | 18.1          | 148,223,614 | 18.1          | 113,728,425 | 12.6          |
| British Columbia....               | 2,095,508   | 0.3           | 4,265,910   | 0.5           | 136,385,911 | 15.2          |
| Yukon.....                         | 2,720,988   | 0.4           | 4,267,485   | 0.5           | 5,099,176   | 0.6           |
| Northwest Territories <sup>1</sup> |             |               |             |               | 6,801,729   | 0.8           |
| Totals <sup>1</sup> .....          | 644,869,975 | 100.0         | 820,248,865 | 100.0         | 901,110,026 | 100.0         |

Excluding pitchblende products.



Drilling in the Leduc oil fields.



The search for oil in the central Alberta plains continues. Now capable of producing one-third of domestic petroleum needs, Canada is looking toward self-sufficiency in oil.









# ★ Water Powers

The potential power available from the falls and rapids on the numerous rivers, large and small, which are distributed across Canada, constitutes one of the country's great natural resources. In most provinces precipitation and topography are favourable to power development.

Low-cost hydro-electric energy is fundamental to the industrial activities of Canada, and is the basis upon which essential industries have been built. These include: the pulp, paper and wood-products industries which absorb enormous amounts of hydraulic and hydro-electric power; mining, milling and refining of base and precious metals together with their fabrication; electro-chemical industries; and also lighter manufacturing such as food-processing and textile production. The wide distribution of hydro-electric power has contributed largely to the high standard of living in Canada by providing economical domestic service to homes and farms, a service that is being rapidly extended.

As an installation of hydraulic capacity averaging 30 p.c. in excess of available power, indicated by the ordinary six-month flow, has been found to be sound commercial practice, it is estimated that Canada's presently recorded water-power resources represent a feasible installation of more than 55,000,000 h.p. Thus the present total of installed capacity is less than 23 p.c. of the possible turbine installation.

During 1950 the demand for hydro-electric energy continued to expand throughout Canada as a result of the high level of industrial activity and increased commercial, rural and domestic consumption. The output of primary power by central stations exceeded that for 1949, the previous high year, by nearly 8 p.c. and was well in excess of double the average amount for the pre-war period 1935-39. This high demand, in conjunction with low run-off on some rivers, resulted in some peak-load deficiency of power in certain areas, particularly in southern Ontario. Notwithstanding a huge amount of new capacity brought into operation in 1950, the completion of other large plants now under construction or planned will be necessary before any reserve capacity becomes available.

## *Available and Developed Water Power, by Provinces, Dec. 31, 1950*

| Province or Territory                | Available 24-Hour Power<br>at 80 p.c. Efficiency |                                     | Turbine<br>Instal-<br>lation |
|--------------------------------------|--|-------------------------------------|------------------------------|
|                                      | At<br>Ordinary<br>Minimum<br>Flow                | At<br>Ordinary<br>Six-Month<br>Flow |                              |
|                                      | h.p.   | h.p.                                | h.p.                         |
| Newfoundland.....                    | 1,135,000  | 2,585,000                           | 279,160                      |
| Prince Edward Island.....            | 500  | 3,000                               | 2,299                        |
| Nova Scotia.....                     | 25,500   | 156,000                             | 167,160                      |
| New Brunswick.....                   | 123,000  | 334,000                             | 133,111                      |
| Quebec.....                          | 8,459,000  | 13,064,000                          | 6,173,597                    |
| Ontario.....                         | 5,407,200  | 7,261,000                           | 3,591,490                    |
| Manitoba.....                        | 3,309,000  | 5,344,000                           | 595,200                      |
| Saskatchewan.....                    | 542,000  | 1,082,000                           | 111,835                      |
| Alberta.....                         | 507,800  | 1,258,000                           | 169,225                      |
| British Columbia.....                | 7,023,000  | 10,998,000                          | 1,317,333                    |
| Yukon and Northwest Territories..... | 382,500  | 814,000                             | 28,469                       |
| <b>Canada.....</b>                   | <b>26,914,500</b>                                | <b>42,899,000</b>                   | <b>12,568,879</b>            |

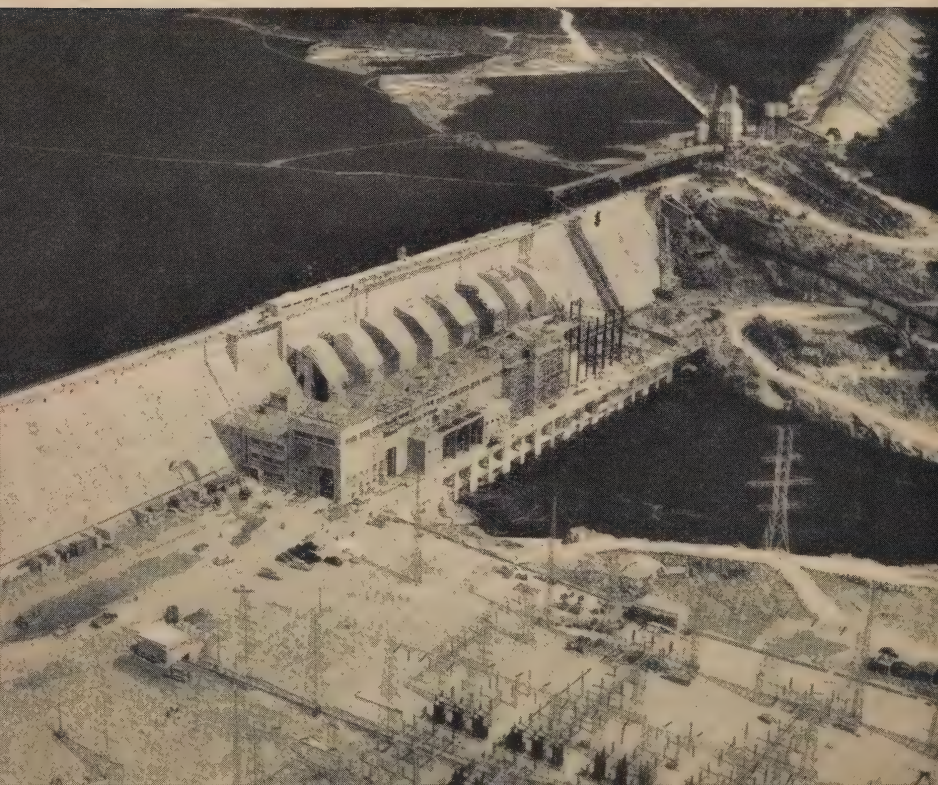
**Provincial Distribution of Water Power.**—The water powers of *Prince Edward Island, Nova Scotia and New Brunswick*, despite the lack of large rivers, constitute a valuable source of electric power, a considerable proportion of which has been developed. Tentative estimates of the water-power resources of *Newfoundland* show that they are quite appreciable; on the Island, relatively heavy precipitation provides a high rate of run-off on the short rivers and, in Labrador, the Hamilton River is outstanding as a potential source of power.

*Quebec* ranks highest in available water-power resources, having over 30 p.c. of the total recorded for all Canada; it has made remarkable progress and its present installation of 6,173,597 h.p. represents over 49 p.c. of the total for Canada. The Saguenay River Shipshaw development of 1,200,000 h.p. and the St. Lawrence River Beauharnois Plant of 742,000 h.p. are the two largest in Canada. The Province of *Ontario* has extensive water-power resources and in total hydro-power developed is exceeded only by Quebec. The Hydro-Electric Power Commission of Ontario operates 62 generating stations totalling over 2,500,000 h.p., the largest being the Niagara River Queenston plant of 560,000 h.p. A large amount of power is also purchased.

*Manitoba* has more water-power resources and has developed them to a greater extent than either of the other Prairie Provinces. Practically all of the developed sites centre on the Winnipeg River. These supply not only

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The Des Joachims power plant on the Ottawa River was officially opened in June, 1950. With its eight generating units in service, it supplies 480,000 h.p. to the Southern Ontario System.





Winnipeg and its suburban areas but, through the transmission network of the Manitoba Power Commission, power is distributed to more than 350 municipalities and a large part of the rural areas of southern Manitoba where farm electrification is a primary objective. In *Saskatchewan* water-power development is confined to the northern mining districts. The southern portions of *Saskatchewan* and *Alberta*, which are lacking in water-power resources, have large fuel reserves. In *Alberta*, present developments are located in the Bow River Basin and serve Calgary and numerous other municipalities between the International Boundary and the area north of Edmonton. However, the larger part of the power resources of the Province is located north of, and remote from, the centres of population.

*British Columbia*, traversed by three distinct mountain ranges and with favourable climate and rainfall, ranks second among the provinces in available power resources and its hydraulic development is exceeded only by Quebec and Ontario. Present developments are practically all located in the southern part of the Province in the Fraser and Columbia River Basins, although resources are well distributed. In *Yukon* and the *Northwest Territories*, there are numerous rivers offering opportunities for power development, although relatively light precipitation and a prolonged winter season limit favourable sites to locations where adequate storage is available. Successful developments have been made for local mining purposes.

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*The coffer dam at Pine Falls, Man. This project, scheduled for completion in the summer of 1952, will add 114,000 h.p. to Manitoba's power output.*





**Hydro-Electric Construction during 1950.**—In the amount of new hydro-electric capacity coming into operation, the year 1950 set a peacetime record of 950,300 h.p. which was exceeded only by 1943 when the huge Shipshaw plant was brought into operation for aluminum production. A large proportion of the new capacity is located in Ontario and represents the culmination of the great post-war program of construction undertaken by the Hydro-Electric Power Commission of Ontario, particularly the completion of the Des Joachims plant of 480,000 h.p. on the Ottawa River. Other moderate-sized plants and additions to capacity were well distributed across the country. Plants actively under construction are tentatively rated at about 1,000,000 h.p. and those under preliminary construction or definitely planned total about 1,500,000 h.p. The growth in demand for hydro-electric power has not only readily absorbed the output of new installations but has tended to accelerate the construction of those at present under way and to advance future plans of development.

*Ontario.*—The Hydro-Electric Power Commission of Ontario completed a large part of its current construction program and brought into operation 676,000 h.p. in four plants. Remarkable progress was made on its major development, the Des Joachims plant of 480,000 h.p. on the Ottawa River above Pembroke, and by the year's end all eight units of 60,000 h.p. each were in operation well in advance of original schedule. Similar rapid progress was achieved on the Chenaux development, on the Ottawa River north of Renfrew, and three units of 20,000 h.p. each were producing power while the remaining five units were due for early completion. At the third Ottawa River site under development, La Cave above Mattawa, the main dam was well advanced; in the flood area, clearing, railway relocation and highway reconstruction were under way. The plant will have a capacity of 192,000 h.p. in six units with initial operation scheduled for 1952. On the Nipigon River at Pine Portage, the present stage of development, 80,000 h.p. in two units, was completed. Provision has been made for two additional units when required. On the Mississagi River near Thessalon, the Tunnel Development of 56,000 h.p. was brought into operation in June and the storage dam at Rocky Island Lake was completed during the summer. Investigations were carried out covering a 500,000-h.p. plant on the lower Niagara River and construction was under way at the end of the year.

Aside from the Commission's activities, the Great Lakes Power Company completed the installation of a new unit of 13,200 h.p. in its plant on the Michipicoten River, the town of Orillia brought into operation its new plant of 3,750 h.p. on the Muskoka River and the Abitibi Pulp and Paper Company increased the capacity of its Iroquois Falls plant by 2,000 h.p. by redesign and change-over to electric drive.

*Quebec.*—Although hydro-electric construction was active during the year, no new plants were brought into operation and the largest single addition to the Province's capacity was by the Northern Quebec Power Company, a new unit of 34,500 h.p. in its Quinze Plant on the Ottawa River. Other smaller additions were: town of Mont Laurier, two new units totalling 2,700 h.p. in its plant on the Lièvre River; Pembroke Electric Light Company, a new unit of 3,000 h.p. in its Black River plant; and the city of Rivière du Loup, a new unit of 1,800 h.p. in its municipal plant.



*Tunnel Generating Station on the Mississagi River, 76 miles from Sault Ste. Marie, Ont., was placed in operation in June, 1950. Its two units produce 56,000 h.p. This view from the top of the 235-ft. main dam shows the tailrace which is 40 ft. wide and extends 1,800 ft. downstream.*

Good progress was made by the Shawinigan Water and Power Company on its development of 325,000 h.p. at La Trenché Rapids on the St. Maurice River and initial operation was scheduled for 1951. Also due for 1951 operation were three new units of 55,000 h.p. each in the Beauharnois plant of the Quebec Hydro-Electric Commission. The city of Sherbrooke has purchased the idle plant of the Brompton Pulp and Paper Company and is converting it to a hydro-electric station by installing two generators of 5,000 kva.

*British Columbia.*—The British Columbia Electric Railway Company installed a third unit of 47,000 h.p. in its Ruskin plant on the Stave River and has under construction an addition of 44,000 h.p. in its Lake Buntzen plant. The British Columbia Power Commission completed the first stage of its Whatchan Lake project by bringing two units of 16,500 h.p. each into operation; provision has been made for two additional units when required. The Commission also has under construction a development at Clowhom Falls to consist initially of two units of 2,000 h.p. each; ultimate capacity of the plant is 20,000 h.p. Ashcroft Water and Electric Company completed a new 500-h.p. plant and dam on the Bonaparte River. The Aluminum Company of Canada continued its investigations towards building a high-head plant to use water from Fraser River tributaries by diversion through the Coastal Range.

*Prairie Provinces.*—Calgary Power Limited, late in the year, brought into operation its new plant of 62,000 h.p. on the Spray River and was proceeding, for 1951 operation, with the building of a plant of 3,600 h.p. below the storage dam which was constructed on Spray Lakes. The ultimate over-all scheme includes a lower plant of 23,000 h.p. to use the remaining fall to the Bow River.

In Manitoba, the Winnipeg Electric Company increased the capacity of its Seven Sisters plant on the Winnipeg River by the addition of the fifth unit of 37,500 h.p.; ultimately a sixth unit may be installed. Although delayed by high water, the Government of Manitoba made good progress on the construction of the Pine Falls plant of 114,000 h.p. on the Winnipeg River and initial operation was scheduled for 1951. Sherritt-Gordon Mines, Limited, are planning the development of 7,000 h.p. on the Laurie River for 1951 construction.

*Atlantic Provinces.*—The Nova Scotia Power Commission brought into operation a plant of 12,000 h.p. in two units on the Mersey River at Deep Brook and continued investigations on sites on the Bear and Tusket Rivers. The Nova Scotia Light and Power Company completed a development of 5,000 h.p. on Paradise Brook.

The New Brunswick Electric Power Commission has begun preliminary construction on a development of 25,000 h.p. on the Tobique River for 1953 operation. The project includes five small storage dams in addition to the main dam.

The Newfoundland Light and Power Company completed a new development of 13,000 h.p. on the Mobile River and also installed a new unit of 3,350 h.p. in its Tors Cove plant. The Company serves St. John's and Bell Island.

### *Central Electric Stations*

Central electric stations are companies, municipalities or individuals selling or distributing electric energy generated by themselves or purchased



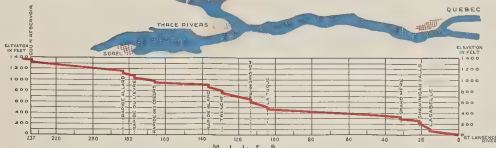
GOVIN RESERVOIR

MANOUAN  
RESERVOIRSMATTAWIN  
RESERVOIR  
AND  
DAMTHAWANIAN FALLS  
400,000 H.P.

THREE RIVERS

LACABELLE  
177,503 H.P.

QUEBEC



## WATER-STORAGE SYSTEM RELATED TO HYDRO POWER DEVELOPMENTS OF THE ST. MAURICE BASIN

The power potential of a drainage basin is influenced by the natural run-off conditions obtaining in the area. These conditions vary greatly across Canada as they are affected by such factors as topography, terrain, forest and vegetative cover, and climate. For instance, in the Pacific Coast region where the annual precipitation is high, the run-off from spring rains and snow-melt is very rapid owing to the steep, rugged topography and impervious terrain while stream flows are much lower in the drier summer season. As the true power potential of a power site depends not only upon the head but upon the amount of water available throughout the year, figures of available 24-hour water power are usually computed on the bases of ordinary minimum flow and of ordinary six months flow, as shown in the table at p. 79 which lists, by provinces, the total water-power resources of Canada, as computed for known sites from official stream-flow studies. It may be noted that the total power available at ordinary minimum flow is only about 60 p.c. of that ordinarily

*Continued on leaf →*

available for six months of the year. On some rivers, there is an extreme variation in flow during the year while, on others, flow is much more uniform.

One of the problems of the water-power engineer is to regulate, to the most economic and practical extent, the stream-flow at a power site so that a more uniform flow will be available throughout the year. This is accomplished by the use of storage reservoirs, which are usually lake areas, natural or artificial, the levels of which are controlled by storage dams. Favorable topography, such as Ontario and Quebec frequently afford, is a prerequisite to the establishment of adequate storage. These provinces lie almost wholly within the Canadian Shield, which was subject to intense glaciation in recent geological times, so that its river systems are comparatively young and are characterized by numerous lakes joined by short sections of fast water. Dams may thus be constructed at reasonable cost, creating huge storage reservoirs which, in some instances, allow of complete flow regulation and permit the maximum generation of power with consequent lowering of power costs. The maximum run-off commonly occurs in the spring and water is stored at that time for the generation of power during the late autumn and winter months when natural run-off is usually at its minimum but when power demand is highest.

The storage of water for power purposes has reached a particularly high state of development in the Province of Quebec in which 17 important storage reservoirs are located, as well as many smaller ones. These larger reservoirs have a total area of about 2,200 square miles and an impounding capacity of 1,210,000,000,000 cu. ft. of water with which to control the run-off from an area of about 60,000 square miles. An outstanding instance of the use of storage and of power development is provided by the dams and plants on the St. Maurice River as illustrated on the chart. It shows the areas in which run-off is conserved by control dams, built in strategic locations to take advantage of natural topographic conditions, which allow practically full regulation of flow for efficient use of the power plants downstream.

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for resale. They are divided into two classes according to ownership: (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or provincial governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 87 p.c. of the total capacity of hydraulic installations in all industries in Canada and the generators driven by this hydraulic equipment generate 97 p.c. of the total output of all central electric stations. The fuel stations number 326 and 44 hydraulic stations have thermal auxiliary equipment.

### *Average Monthly Output of Central Electric Stations, 1929-50*

| Year      | From Water | From Fuel | Total     | Year     | From Water | From Fuel | Total     |
|-----------|------------|-----------|-----------|----------|------------|-----------|-----------|
|           | '000 kwh.  | '000kwh.  | '000 kwh. |          | '000 kwh.  | '000kwh.  | '000 kwh. |
| 1929..... | 1,441,203  | 27,622    | 1,468,825 | 1945.... | 3,262,771  | 78,946    | 3,341,717 |
| 1932..... | 1,296,360  | 25,845    | 1,322,205 | 1946.... | 3,382,602  | 84,374    | 3,466,976 |
| 1939..... | 2,321,815  | 40,811    | 2,362,626 | 1947.... | 3,657,843  | 91,021    | 3,748,864 |
| 1941..... | 2,731,880  | 55,233    | 2,787,113 | 1948.... | 3,613,200  | 108,800   | 3,722,000 |
| 1943..... | 3,299,998  | 64,807    | 3,364,805 | 1949.... | 3,757,024  | 132,411   | 3,889,435 |
| 1944..... | 3,290,538  | 81,637    | 3,372,175 | 1950.... | 4,050,000  | 155,000   | 4,205,000 |

Revenues of central stations in 1948 amounted to \$257,377,490 and 2,398,847 domestic customers were served, representing approximately two-thirds of all families in Canada, both urban and rural.

Electric energy is exported from Canada only under licence and an export tax of 0.03 cent per kwh. is levied. Exports showed a steady increase from 1936 to 1945 (amounting to 2,646,435,000 kwh. in 1945) but declined to 1,756,752,000 kwh. in 1949; increasing domestic demand and low water levels left less available for export.

*The bolometer, a war device adapted by radar experts, is used to detect overheated transmission - line joints by means of infra-red radiations.*







*Deck cargo of an Atlantic fishing trawler.*

## ★ Fisheries

The most extensive and prolific fishing grounds in the world are off Canada's east and west coasts, where both inshore and offshore operations are long-established industries. The Great Lakes and other large bodies of water, including Lake Winnipeg and Great Slave Lake, provide substantial amounts of fresh-water fish, most of which is sold in the United States.

The bank fisheries of the Atlantic, which extend along the great submerged shelf off the Maritime Provinces and Newfoundland, attract fishermen not only from Canada and the United States but from several European countries. The most important catches are cod, haddock, halibut and other ground fish. The continental shelf which provides the fishing grounds off the West Coast is not as extensive as that of the Atlantic, reaching out only 60 or 70 miles from land, but it still provides rich halibut fishing as well as the famous British Columbia salmon pack.

Chief products of the inland fisheries are whitefish, trout, pickerel, tullibee, lake herring, pike, perch and sturgeon. Until recent years the development of fresh-water fisheries has been largely in waters close to inhabited areas. However, the great advances made in transportation and processing have made it possible to fish profitably in lakes formerly inaccessible to commercial operations. The 1950 summer catch in Great Slave Lake, for instance, amounted to over 3,900,000 lb., whitefish forming more than half the catch and trout nearly all the remainder.

The sea and inland fisheries of Canada were among the country's first industries and can still be included with the sources of national wealth under current development. The discovery of new stocks, technological advances and market changes in recent years have opened up whole new fields of activity in the fisheries.

It is felt that there is still room for expansion of the fisheries resources. Albacore tuna, for example, found in large numbers off the British Columbia coast, holds great potential value. Even though this particular fishery is still only in the development stage, more than 1,000,000 lb. were landed during the first nine months of 1950. Halibut-liver oil, one of the richest in vitamins, finds a ready and extremely profitable market, and oils of somewhat lower potency are extracted from shark livers. Whaling operations off both coasts are again being conducted.

The Atlantic fishery resources, too, can be expanded further. Exploration had led to the discovery of valuable stocks of cod and herring. Biological research essential to the full development of all Canada's fisheries is continually carried on by the Fisheries Research Board.

The increased use of trawlers, the development of quick-freezing and filleting equipment and cold-storage facilities have all helped to make the industry much more diversified than formerly. Modern methods of packaging and canning have been adapted to fishery products. Merchandising, too, has undergone drastic changes, and retailers across the country are offering more fish in greater variety than ever before. Certain varieties of fish such



as British Columbia salmon, Atlantic lobster, halibut and whitefish command premium prices on the world market so that, although not the greatest fish-exporting nation (Norway exports larger quantities), Canada's exports lead the world in terms of dollar value. Ordinarily Canada is eighth among the fish-producing countries in volume of fish landed; landings (including those in Newfoundland) amount to about 1,800,000,000 lb. per year.

An evolution is taking place in Canadian fishing craft. For example, in the Caraquet area of New Brunswick, a fishing fleet of small and medium draggers was put into operation during the Second World War and has since been expanded. The number of larger fishing craft (40 tons or more) in Canadian waters has increased by two and one-half times in the past few years; the number of vessels between 20 and 40 tons has doubled, but there has been a decrease in the number of small boats of the inshore type.

A change has been made in the licensing policy for trawlers and draggers. Until 1950, licences were issued only to Canadian-built ships but are now granted to new trawlers built in the United Kingdom as well. Licences are issued also to better types of second-hand trawlers bought in the United Kingdom or the United States and registered in Canada after payment of the duty, with the proviso that licences to these second-hand trawlers are granted only to those who build new vessels in Canada to match the imported craft.

There has been a definite increase in the production of fish for marketing in fresh and frozen state, resulting from the adoption of improved techniques in refrigeration and transportation. Fresh and frozen products now make up 45 p.c. of the total annual market value of Canada's fish production and 34 p.c. of the value of her fish exports. Other processing changes have taken place recently. In the case of herring there has been a diversion in the post-war period from the canned product to the production of meal and oil. The amount of canned cod and related species has been reduced and the production adjusted to meet the normal demand which, since the War and subsequent to the cessation of relief programs, has been almost exclusively confined to the domestic market. The production of salted cod has been at a high level despite the difficulties encountered in the marketing of this product through



*Documents ratifying the Convention between the United States and Canada for the extension of port privileges to halibut fishing vessels on the Pacific Coast of the two countries were exchanged recently by the United States Ambassador, Mr. Stanley Woodward, (left) and the Secretary of State for External Affairs, the Hon. L. B. Pearson, acting in the absence of the Hon. R. W. Mayhew, Minister of Fisheries. The Convention was signed at Ottawa on Mar. 24, 1950.*





*In Vancouver harbour the halibut fleet, gleaming with new paint, awaits the opening of the fishing season.*

the scarcity of dollar exchange in the Mediterranean countries, the British West Indies and Brazil.

These changes together with the increasing use of such modern equipment as radar and echo sounders in fishing craft have greatly increased the potential of the industry and to help realize this potential the Federal Department of Fisheries, early in 1950, began a program of development and rehabilitation.

On the whole, 1950 was a good year for Canadian fishermen, although there was a failure in one segment of the West Coast salmon fishery. Almost an entire race of sockeye failed to materialize. It was the "cycle" year for the run which spawns in the lower Adams River area. More than 10,000,000 of the fish were expected but only negligible numbers appeared. In order to ensure the continuance of the race, all fishing had to be stopped while the lower Adams salmon were entering the Fraser River, to which the Adams is tributary. Nevertheless, the pack of British Columbia salmon in 1950 was well up to average.

There is a continuing need for conservation of certain species of fish and, in notable instances, Canada co-operates with the United States to guarantee the survival of large quantities of fish. The International Pacific Salmon Fisheries Commission supervises the salmon runs of the Fraser, and the



*Raking in Malpeque  
oysters off the coast  
of Prince Edward Is-  
land.*



*Brailing herring on the west coast.*



International Fisheries Commission recommends regulations for the halibut stocks. It is the purpose of both Commissions to assure the perpetuation of the species under their control.

Marketing of Canadian fish and fish products is mainly through exports to other countries which cannot themselves produce enough fish for their requirements. More than 66 p.c. of Canadian production is marketed outside the country, the United States alone taking 44 p.c. Chief competition in the export fish trade comes from Norway, Iceland and Denmark. Recently, however, Canadians themselves are eating more fish.

To-day, the marketed value of the nation's fisheries (including Newfoundland) totals nearly \$180,000,000. This is not a high figure when compared with the production of some other Canadian industries, but for the people of several Canadian provinces it is the dominating factor in their existence. The recent economic strength of the industry is evidenced by the fact that ten years ago the marketed value was only slightly more than \$45,000,000.

### Statistics of Fisheries Production

The first half of the twentieth century, with its two world wars and great depression, has brought fluctuations of fortune to the fisheries, but it has been on the whole an era of increasing development and prosperity. While the level of employment has been generally lower since the end of the First World War, the total value of fisheries production and the value of fishing craft and equipment have increased year by year since 1939.

Trends in landings, values of production and equipment, and numbers employed are shown in the following table.

#### Quantities Landed, Values of Production and Equipment, and Numbers Employed in the Fishery Industry, at Five-Year Intervals, with Ten-Year Averages, 1899-1948

| Year and Average       | Quantity Landed | Values of— |           | Numbers Employed in— |                     |
|------------------------|-----------------|------------|-----------|----------------------|---------------------|
|                        |                 | Production | Equipment | Fishing              | Fish Processing     |
|                        | '000 lb.        | \$'000     | \$'000    | No.                  | No.                 |
| 1899.....              | ..              | 21,892     | ..        | ..                   | ..                  |
| 1904.....              | ..              | 23,516     | ..        | 77,345               | 13,981              |
| Average 1899-1908..... | ..              | 24,447     | ..        | 77,282 <sup>1</sup>  | 14,070 <sup>1</sup> |
| 1909.....              | ..              | 29,629     | ..        | 68,663               | 21,694              |
| 1914.....              | ..              | 31,265     | ..        | 69,954               | 24,559              |
| Average 1909-18.....   | ..              | 37,976     | ..        | 69,540               | 24,094              |
| 1919.....              | 930,632         | 56,508     | 31,376    | 67,804               | 18,356              |
| 1924.....              | 913,757         | 44,534     | 23,543    | 53,914               | 15,526              |
| Average 1919-28.....   | 953,496         | 47,806     | 27,813    | 59,139               | 16,432              |
| 1929.....              | 1,150,085       | 53,519     | 33,935    | 64,083               | 16,367              |
| 1934.....              | 933,087         | 34,022     | 26,213    | 68,634               | 14,802              |
| Average 1929-38.....   | 995,450         | 37,239     | 27,672    | 67,014               | 14,586              |
| 1939.....              | 1,063,774       | 40,076     | 25,843    | 68,941               | 14,814              |
| 1944.....              | 1,179,146       | 89,440     | 35,057    | 64,208               | 17,272              |
| 1948.....              | 1,431,660       | 139,749    | 67,289    | 66,115               | 16,497              |
| Average 1939-48.....   | 1,240,570       | 89,625     | 38,911    | 66,130               | 16,661              |

<sup>1</sup> Nine-year average, 1900-08.

The following table gives an analysis of 1948 value of production, by provinces, with values of the chief commercial fishes for each province.



**Market Values of Fish Production, by Provinces, 1948, and Averages  
1935-39, together with Chief Kinds of Fish, by Provinces, 1948**

| Province or Territory  | Market Values of Production |         | Percentages of Total Values |       | Values in 1948 of Chief Commercial Fishes |                       |        |
|------------------------|-----------------------------|---------|-----------------------------|-------|---|-----------------------|--------|
|                        | Average 1935-39             | 1948    | Average 1935-39             | 1948  | Kind                                      | Province or Territory | Canada |
|                        | \$'000                      | \$'000  | p.c.                        | p.c.  |   | \$'000                | \$'000 |
| Prince Edward Island.  | 921                         | 3,634   | 2.4                         | 2.6   | Lobsters..                                | 2,257                 | 13,958 |
|                        |                             |         |                             |       | Cod.....                                  | 319                   | 18,772 |
|                        |                             |         |                             |       | Hake.....                                 | 248                   | 1,640  |
| Nova Scotia.....       | 8,709                       | 36,091  | 22.6                        | 25.8  | Cod.....                                  | 13,746                | 18,772 |
|                        |                             |         |                             |       | Lobsters..                                | 6,525                 | 13,958 |
|                        |                             |         |                             |       | Haddock..                                 | 4,380                 | 4,536  |
| New Brunswick.....     | 4,375                       | 20,122  | 11.3                        | 14.4  | Sardines..                                | 7,174                 | 7,248  |
|                        |                             |         |                             |       | Lobsters..                                | 4,667                 | 13,958 |
|                        |                             |         |                             |       | Herring...                                | 2,543                 | 15,868 |
| Quebec.....            | 1,983                       | 5,943   | 5.1                         | 4.2   | Cod.....                                  | 2,937                 | 18,772 |
|                        |                             |         |                             |       | Mackerel..                                | 561                   | 2,252  |
|                        |                             |         |                             |       | Lobsters..                                | 509                   | 13,958 |
| Ontario.....           | 3,208                       | 6,394   | 8.3                         | 4.6   | Whitefish.                                | 2,251                 | 4,988  |
|                        |                             |         |                             |       | Blue pickerel                             | 991                   | 991    |
|                        |                             |         |                             |       | Pickrel..                                 | 817                   | 3,742  |
| Manitoba.....          | 1,638                       | 5,415   | 4.2                         | 3.9   | Pickrel..                                 | 2,641                 | 3,742  |
|                        |                             |         |                             |       | Whitefish.                                | 858                   | 4,988  |
|                        |                             |         |                             |       | Saugers...                                | 650                   | 732    |
| Saskatchewan.....      | 419                         | 1,282   | 1.1                         | 0.9   | Whitefish.                                | 564                   | 4,988  |
|                        |                             |         |                             |       | Trout....                                 | 254                   | 1,644  |
|                        |                             |         |                             |       | Pickrel..                                 | 229                   | 3,742  |
| Alberta.....           | 378                         | 636     | 1.0                         | 0.5   | Whitefish.                                | 350                   | 4,988  |
|                        |                             |         |                             |       | Tullibee..                                | 200                   | 903    |
|                        |                             |         |                             |       | Pike.....                                 | 45                    | 717    |
| British Columbia.....  | 16,986                      | 58,704  | 44.0                        | 42.0  | Salmon...                                 | 36,671                | 37,929 |
|                        |                             |         |                             |       | Herring...                                | 10,485                | 15,868 |
|                        |                             |         |                             |       | Halibut...                                | 4,648                 | 5,397  |
| Northwest Territories. | <sup>1</sup>                | 1,528   | ...                         | 1.1   | Whitefish.                                | 930                   | 4,988  |
|                        |                             |         |                             |       | Trout....                                 | 570                   | 1,644  |
| Yukon.....             | 11                          | —       | —                           | ...   |   |                       |        |
| Canada.....            | 38,628                      | 139,749 | 100.0                       | 100.0 |   |                       |        |

<sup>1</sup>Not collected before 1945.



*Taking eggs from a maskinonge at an Ontario Government fish hatchery.*

Wrapping fillets for quick freezing in a fish-packing plant.



The marketed value of fisheries production in 1948 amounted to \$139,749,000, an increase of nearly 13 p.c. over the 1947 figure. Although the quantity of fish landed in 1948 reached a new peak and was 7 p.c. higher than the previous record attained in 1945, the increase in marketed value was due mainly to higher average selling prices for many species and the development of those products that command higher prices, particularly in foreign markets.

The value of products of the fish-processing industry increased from \$26,089,000 in 1937 to \$115,821,000 in 1948. Of the 1948 total, the 27 salmon canneries reported 35 p.c., other canneries 17 p.c., fish-curing establishments 27 p.c. and fresh-fish freezing and reduction plants 21 p.c.

### Numbers, Employees and Production of Fish-Processing Establishments, 1937-48

| Year      | Establishments |                     | Employees |                     | Value of Production |                     | Value of Fish Marketed Fresh as P.C. of Total |
|-----------|----------------|---------------------|-----------|---------------------|---------------------|---------------------|---|
|           | No.            | P.C. of 1939 Figure | No.       | P.C. of 1939 Figure | \$'000              | P.C. of 1939 Figure |   |
| 1937..... | 597            | 114.1               | 14,044    | 94.8                | 26,089              | 90.5                | 27  |
| 1939..... | 523            | 100.0               | 14,814    | 100.0               | 28,817              | 100.0               | 28  |
| 1941..... | 463            | 88.5                | 15,842    | 106.9               | 48,176              | 167.2               | 24  |
| 1943..... | 523            | 100.0               | 15,899    | 107.3               | 64,805              | 224.9               | 33  |
| 1945..... | 540            | 103.3               | 17,501    | 118.1               | 93,545              | 324.6               | 41  |
| 1947..... | 594            | 113.6               | 18,631    | 125.8               | 105,206             | 365.1               | 33  |
| 1948..... | 600            | 114.7               | 16,497    | 111.4               | 115,821             | 401.9               | 35  |





*A trapper displays his catch of mixed furs.*



The fur trade was Canada's first industry and remained so during the early years of exploration and settlement. It was the demand for furs from Europe and the resulting competition and rivalries among the traders that sent the explorers farther and farther into the wilderness opening up new districts that eventually lured the settlers. As civilization advanced, other industries grew and the fur trade inevitably became relatively less and less important until to-day it is a minor item on the Canadian production record. Nevertheless, Canada is still one of the great natural fur preserves of the world. In her vast northern regions trapping is still the means of livelihood for many of the inhabitants—Indian, half-breed and white man alike. During the 1948-49 season approximately 9,900,000 pelts were taken, 93 p.c. of them from wild animals.

## Numbers and Values of Pelts Taken, Years Ended June 30, 1940-49

| Year Ended June 30 | Pelts      |            | P.C. of Value Sold from Fur Farms | Year Ended June 30 | Pelts     |            | P.C. of Value Sold from Fur Farms |
|--------------------|------------|------------|-----------------------------------|--------------------|-----------|------------|-----------------------------------|
|                    | Number     | Value      |                                   |                    | Number    | Value      |                                   |
|                    |            | \$         |                                   |                    |           | \$         |                                   |
| 1940.....          | 9,620,695  | 16,668,348 | 31                                | 1945....           | 6,994,686 | 31,001,456 | 31                                |
| 1941.....          | 7,257,337  | 21,123,161 | 27                                | 1946....           | 7,593,416 | 43,870,541 | 30                                |
| 1942.....          | 19,561,024 | 24,859,869 | 19                                | 1947....           | 7,486,914 | 26,349,997 | 37                                |
| 1943.....          | 7,418,971  | 28,505,033 | 24                                | 1948....           | 7,952,146 | 32,232,992 | 37                                |
| 1944.....          | 6,324,240  | 33,147,392 | 28                                | 1949....           | 9,902,790 | 22,899,882 | 33                                |

## Numbers and Values of Pelts Taken, by Provinces, Years Ended June 30, 1948 and 1949

| Province or Territory   | 1948             |                   |                     | 1949             |                   |                     |
|-------------------------|------------------|-------------------|---------------------|------------------|-------------------|---------------------|
|                         | Pelts            | Value             | P.C. of Total Value | Pelts            | Value             | P.C. of Total Value |
|                         | No.              | \$                |                     | No.              | \$                |                     |
| Prince Edward Island..  | 40,603           | 568,715           | 1.8                 | 47,013           | 640,289           | 2.8                 |
| Nova Scotia.....        | 137,248          | 622,617           | 1.9                 | 234,364          | 612,032           | 2.7                 |
| New Brunswick.....      | 67,071           | 453,159           | 1.4                 | 77,232           | 398,982           | 1.7                 |
| Quebec.....             | 437,459          | 3,458,928         | 10.7                | 555,245          | 2,388,065         | 10.4                |
| Ontario.....            | 1,188,531        | 8,132,455         | 25.2                | 1,119,957        | 5,661,318         | 24.8                |
| Manitoba.....           | 1,491,638        | 6,105,926         | 19.0                | 1,790,848        | 4,036,459         | 17.6                |
| Saskatchewan.....       | 1,181,662        | 3,500,943         | 10.9                | 1,667,008        | 2,248,441         | 9.8                 |
| Alberta.....            | 2,174,744        | 5,313,956         | 16.5                | 2,788,864        | 3,761,727         | 16.5                |
| British Columbia.....   | 619,543          | 1,973,874         | 6.1                 | 548,154          | 1,473,298         | 6.4                 |
| Yukon.....              | 131,227          | 230,117           | 0.7                 | 151,969          | 143,810           | 0.6                 |
| Northwest Territories.. | 482,420          | 1,872,302         | 5.8                 | 922,136          | 1,535,461         | 6.7                 |
| <b>Canada.....</b>      | <b>7,952,146</b> | <b>32,232,992</b> | <b>100.0</b>        | <b>9,902,790</b> | <b>22,899,882</b> | <b>100.0</b>        |

Ontario leads the provinces in value of fur production, having accounted for 25 p.c. of the total in the year ended June 30, 1949. Manitoba produced 18 p.c. of the total, Alberta 16 p.c. and Saskatchewan and Quebec each 10 p.c. The numbers of pelts taken in Alberta, Manitoba and Saskatchewan were higher than in Ontario, but in those provinces muskrat and squirrel, which

are lower-priced furs, made up the major portion of the total while in Ontario the more valuable mink pelts brought the total value to a higher level.

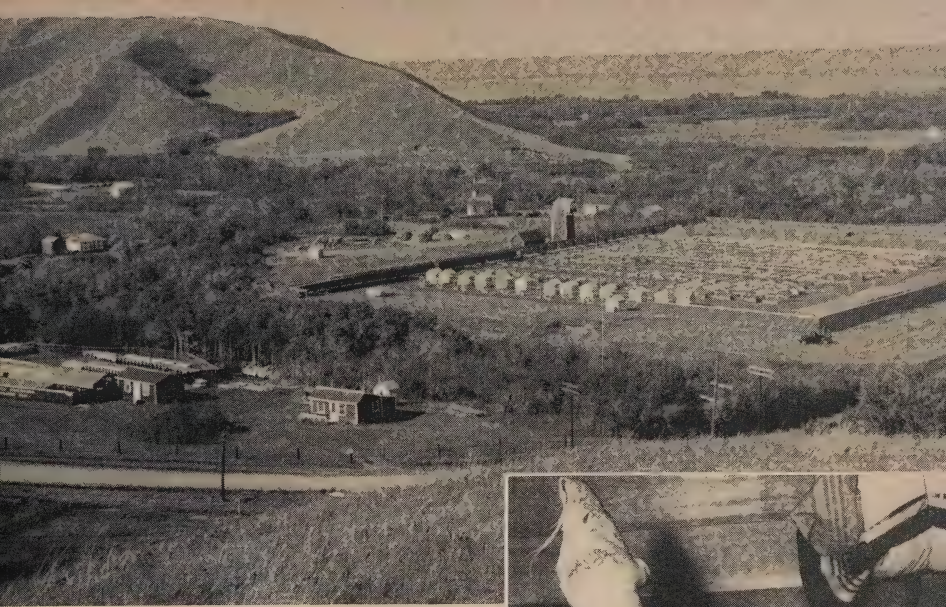
The fur industry has changed very markedly over the decades. The early supremacy of the beaver has slowly disappeared; less than 15 p.c. of the total value of furs taken in 1949 were beaver. The successful breeding of the fox on fur farms came in the period of rising prices after 1890, with the introduction of woven-wire fencing. The fox, especially the silver fox, held the position of greatest importance in the fur industry from early in the present century until 1944. Mink have been raised for many years on farms but it is only during the past few years that this animal has contributed substantially to the Canadian fur industry. In the 1945 season, mink took the lead in total value of pelts taken in Canada and has continued in this position; in 1949 mink accounted for over 36 p.c. of the value of pelts taken. Fashions indicate that this fur will occupy a position of importance for some time to come. The second greatest contributor to the value of pelts taken is the muskrat, followed by beaver, fox pelts of all types, squirrel and ermine pelts. The decrease in total value as compared with 1947-48 was mainly due to lower average prices for beaver, ermine, muskrat, white and silver fox, squirrel, otter and marten skins. Beaver pelts increased by 26,000, squirrel by 1,485,000 and muskrat by 555,000, while mink pelts decreased by 27,000. The average price of beaver dropped from \$32.36 to \$20.72, ermine from \$2.27 to \$1.63, muskrat from \$2.67 to \$1.49 and squirrel from 62 cents to 24 cents. The prices of all types of fox pelts, except for white-marked, were lower than in 1947-48.

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*A Federal Government inspector leaves one of the Indian camps on the Abitibi Beaver Reserve. Catches from the different camps are flown to Amos, the nearest town.*







*Fox and mink farms in Western Canada.*

*Fleshing a fox pelt.*



## *Fur Farming*

Scientific breeding has revolutionized the fur industry. Not only has it stabilized business for the fur farmer, but it has brought new glamorous furs into existence. Blond, pure white and silverblue mink and many colour phases of fox now grace the shoulders of fashionable women.

Fur farming is carried on in all provinces of Canada. Of the 5,040 farms operating in 1948, 1,306 were in Ontario, 1,058 in Quebec and 793 in Alberta. The decline in the popularity of long-haired fur resulted in a decrease in the past few years in the number of farms raising foxes. In 1948 there were 262,827 standard and mutation mink valued at \$6,544,333 on 3,319 farms and 42,867 foxes of all types valued at \$1,220,575 on 1,955 farms. All other types of animals raised in captivity, including chinchilla, coyote, fisher, fitch, lynx, marten, nutria, raccoon and skunk, numbered only 5,241.





*A beaver, caught in a "live bait", is being transferred to a new location. The restoration of wildlife to depleted areas by this method has proved very successful.*

In 1948, 634,884 pelts valued at \$7,970,552 were sold from fur farms. This was a decrease of over 16 p.c. in number and 32 p.c. in value over 1947 sales. Average prices for all pelts, except fitch and raccoon, sold from fur farms were lower than in 1947.

The capital value of fur farms in Canada in 1948 for land and buildings was \$11,472,304 and for fur animals \$8,909,535, a total capital of \$20,381,839. The capital invested in land and buildings was 7 p.c. lower and that in animals 37 p.c. lower than in 1947.

### *Fur Processing*

In 1948 the production of fur manufacturing establishments was valued at \$66,384,085. There were 615 establishments employing over 6,400 persons and paying out \$13,482,000 in salaries and wages. About 75 p.c. of their production was women's coats. The peak year for fur prices in Canada was 1946. Since then, although the price of pelts has dropped, in most lines the price of the finished garment has not diminished to the same extent. One reason is the high cost of labour. The lowest-paid fur workers in the larger centres earn from \$30 to \$35 for a 40-hour week, and cutters, if they are good, may earn from \$80 to \$120 a week.

There are also in Canada 21 fur-dressing and dyeing establishments which paid out \$3,119,000 in salaries and wages to 1,602 employees in 1948.

### *Fur Trade*

At the present time the United Kingdom and the United States are Canada's best customers for fur pelts, although Canadian furs have a world-wide distribution. Montreal is the leading fur market in Canada, but auction sales are also held at Vancouver, Edmonton, Regina and Winnipeg.

The Canadian fur trade, both exports and imports, is chiefly in undressed furs; the value of dressed and manufactured furs going out of Canada or coming

in make up a comparatively small portion of the total. A good part of the exports consists, of course, of those furs which Canada produces in greatest abundance, mink being the most valuable followed by beaver, muskrat and fox. On the other hand, such furs as Persian lamb, certain types of muskrat, rabbit and squirrel, and sheep and lamb, which are not produced to any extent in Canada, make up the major portion of the imports.

### *Exports and Imports of Raw and Dressed Furs, 1940-49*

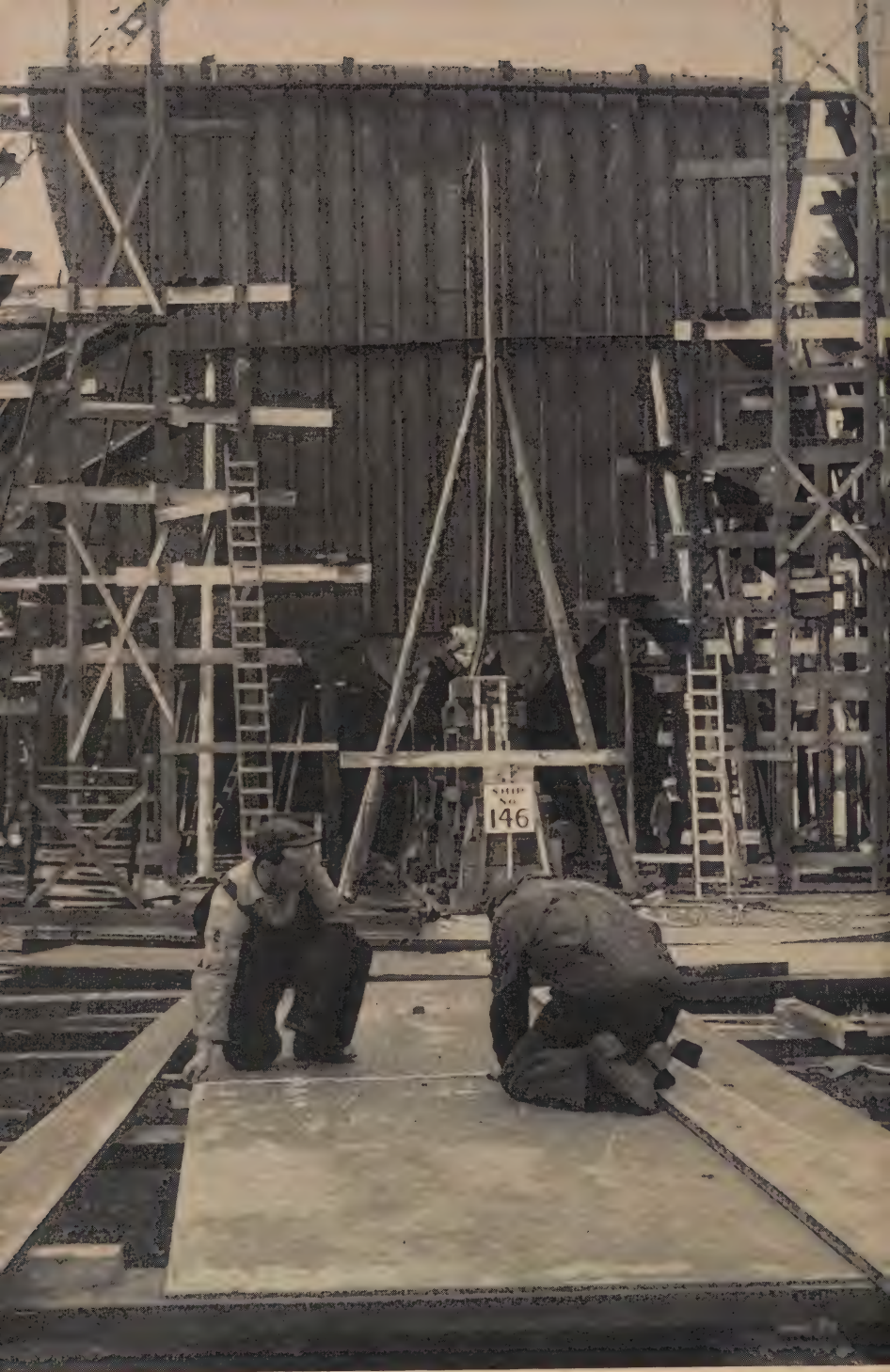
| Year      | Exports <sup>1</sup> |               |               | Imports        |               |               |
|-----------|----------------------|---------------|---------------|----------------|---------------|---------------|
|           | United Kingdom       | United States | All Countries | United Kingdom | United States | All Countries |
|           | \$                   | \$            | \$            | \$             | \$            | \$            |
| 1940..... | 3,306,271            | 12,187,096    | 16,176,075    | 920,528        | 6,813,080     | 8,885,540     |
| 1941..... | 430,428              | 14,883,751    | 16,159,033    | 1,970,910      | 4,112,345     | 9,120,337     |
| 1942..... | 156,586              | 16,869,153    | 17,976,615    | 945,360        | 3,306,214     | 6,448,861     |
| 1943..... | 66,844               | 25,086,912    | 26,448,522    | 496,578        | 4,923,632     | 8,613,879     |
| 1944..... | 28,321               | 25,748,651    | 27,029,329    | 250,280        | 6,832,775     | 11,434,257    |
| 1945..... | 1,363,727            | 26,755,604    | 29,572,474    | 262,775        | 9,078,294     | 21,205,173    |
| 1946..... | 10,842,086           | 19,679,471    | 32,291,425    | 765,577        | 14,764,115    | 27,291,573    |
| 1947..... | 7,378,628            | 20,342,001    | 29,047,741    | 697,737        | 18,586,408    | 22,451,123    |
| 1948..... | 7,965,968            | 15,615,058    | 24,117,782    | 437,805        | 21,153,883    | 24,567,786    |
| 1949..... | 4,875,557            | 18,078,008    | 23,326,656    | 536,072        | 17,477,223    | 19,576,098    |

Canadian produce only.



*Finished furs, after subjection to the multitude of operations necessary in modern processing, show little resemblance to the raw pelts.*





Oil tanker under construction at the Collingwood Shipyards, Ont. This 620-ft. tanker will be part of the fleet carrying Alberta crude oil from the head of Lake Superior.



# Secondary Production

## ★Manufactures

TO-DAY, Canada ranks as an important manufacturing country of the world, and in the export of a number of manufactured products holds a dominant position.

The forward movement in the development of Canadian manufactures has been the result of three great influences: the opening of the west at the beginning of the present century, which greatly increased the demand for manufactured goods of all kinds, especially construction materials; the First World War which left a permanent imprint upon the variety and efficiency of Canadian plants; and the Second World War with its insatiable demands for food and manufactured materials of all sorts.

More especially during the Second World War the situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada, with greatly increased skills and plant capacity, has entered a new era in manufacturing development.

### *Statistics of Manufactures, 1870-1949*

| Year                    | Estab-<br>lish-<br>ments | Capital   | Employees | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|-------------------------|--------------------------|-----------|-----------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|                         | No.                      | \$'000    | No.       | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| 1870.....               | 41,259                   | 77,964    | 187,942   | 40,851                   | 124,908                 | 96,710                      | 221,618                       |
| 1880.....               | 49,722                   | 165,303   | 254,935   | 59,429                   | 179,919                 | 129,757                     | 309,676                       |
| 1890 <sup>1</sup> ..... | 75,964                   | 353,213   | 369,595   | 100,415                  | 250,759                 | 219,089                     | 469,848                       |
| 1900 <sup>2</sup> ..... | 14,650                   | 446,916   | 339,173   | 113,249                  | 266,528                 | 214,526                     | 481,053                       |
| 1910 <sup>2</sup> ..... | 19,218                   | 1,247,584 | 515,203   | 241,008                  | 601,509                 | 564,467                     | 1,165,976                     |
| 1920 <sup>1</sup> ..... | 22,157                   | 2,914,519 | 591,753   | 711,080                  | 2,083,580               | 1,609,169                   | 3,692,748                     |
| 1929.....               | 22,216                   | 4,004,892 | 666,531   | 777,291                  | 2,029,671               | 1,755,387 <sup>3</sup>      | 3,883,446                     |
| 1933.....               | 23,780                   | 3,279,260 | 468,658   | 436,248                  | 967,789                 | 919,671                     | 1,954,076                     |
| 1937.....               | 24,834                   | 3,465,228 | 660,451   | 721,727                  | 2,006,927               | 1,508,925                   | 3,625,460                     |
| 1939.....               | 24,805                   | 3,647,024 | 658,114   | 737,811                  | 1,836,159               | 1,531,052                   | 3,474,784                     |
| 1940.....               | 25,513                   | 4,095,717 | 762,244   | 920,873                  | 2,449,722               | 1,942,471                   | 4,529,173                     |
| 1941.....               | 26,293                   | 4,905,504 | 961,178   | 1,264,863                | 3,296,547               | 2,605,120                   | 6,076,308                     |
| 1942.....               | 27,862                   | 5,488,786 | 1,152,091 | 1,682,805                | 4,037,103               | 3,309,974                   | 7,553,795                     |
| 1943.....               | 27,652                   | 6,317,167 | 1,241,068 | 1,987,292                | 4,690,493               | 3,816,414                   | 8,732,861                     |
| 1944.....               | 28,483                   | ..        | 1,222,882 | 2,029,621                | 4,832,333               | 4,015,776                   | 9,073,693                     |
| 1945.....               | 29,050                   | ..        | 1,119,372 | 1,845,773                | 4,473,669               | 3,564,316                   | 8,250,369                     |
| 1946.....               | 31,249                   | ..        | 1,058,156 | 1,740,687                | 4,358,234               | 3,467,004                   | 8,035,692                     |
| 1947.....               | 32,734                   | ..        | 1,131,750 | 2,085,926                | 5,534,280               | 4,292,056                   | 10,081,027                    |
| 1948.....               | 33,447                   | ..        | 1,156,006 | 2,409,809                | 6,632,881               | 4,940,369                   | 11,876,790                    |
| 1949 <sup>p</sup> ..... | ..                       | ..        | 1,159,315 | 2,566,103                | 6,764,896               | 5,311,259                   | 12,378,731                    |

<sup>1</sup> From 1870 to 1890 and from 1920 to 1949 the figures include all establishments irrespective of the number of employees but exclude construction and custom and repair work.

<sup>2</sup> Includes all establishments employing five hands or over.

<sup>3</sup> For and since 1929 the figures for the net value of production represent the gross value less the cost of materials, fuel and electricity. Prior to this only the cost of materials is deducted.

The estimated value of manufactured products in 1949 reached the record total of \$12,378,731,000 as compared with a value of only \$3,474,784,000

in 1939. Although the record is not so impressive in terms of actual physical output, the expansion of Canadian manufacturing production since 1939, as represented by employment which more closely reflects changes in the physical volume of production, is still phenomenal. The number of employees stood at 1,159,315 in 1949, representing an increase of 76 p.c. over 1939; the 1949 figure was only about 7 p.c. lower than the record number employed in 1943 when Canada was engaged in full-scale war production.

**Geographical Distribution.**—Ontario with about 48 p.c. of the total, ranks as the premier manufacturing province of Canada. This position has been fairly uniformly maintained during the past 70 years. In spite of the rapid industrial development in Quebec, British Columbia and Manitoba in recent years, Ontario is maintaining a manufacturing production roughly equal to that of the remainder of Canada. The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forests, minerals, water powers, and agriculture; a large population and excellent water and rail transportation facilities to other parts of the country; have all encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of United States industries, as in automobile manufacturing. Ontario also has the greatest diversification of manufacturing production of any province. Outstanding among the industries in which this Province is pre-eminent are those of automobiles, agricultural implements, starch, bicycles and carpet manufacture which are carried on practically in this Province alone. Aside from these, Ontario firms contribute over 50 p.c. of the Canadian total in the manufacture of: abrasives; miscellaneous non-ferrous metal products; leather tanneries; soap and washing compounds; rubber goods; cordage, rope and twine; clay products from imported clay; primary iron and steel; woollen yarn; electrical apparatus and supplies; aluminum products; salt; toilet preparations; coke and gas products; acids, alkalies and salts; flour and feed; hosiery and knitted goods; furniture; and glass products.

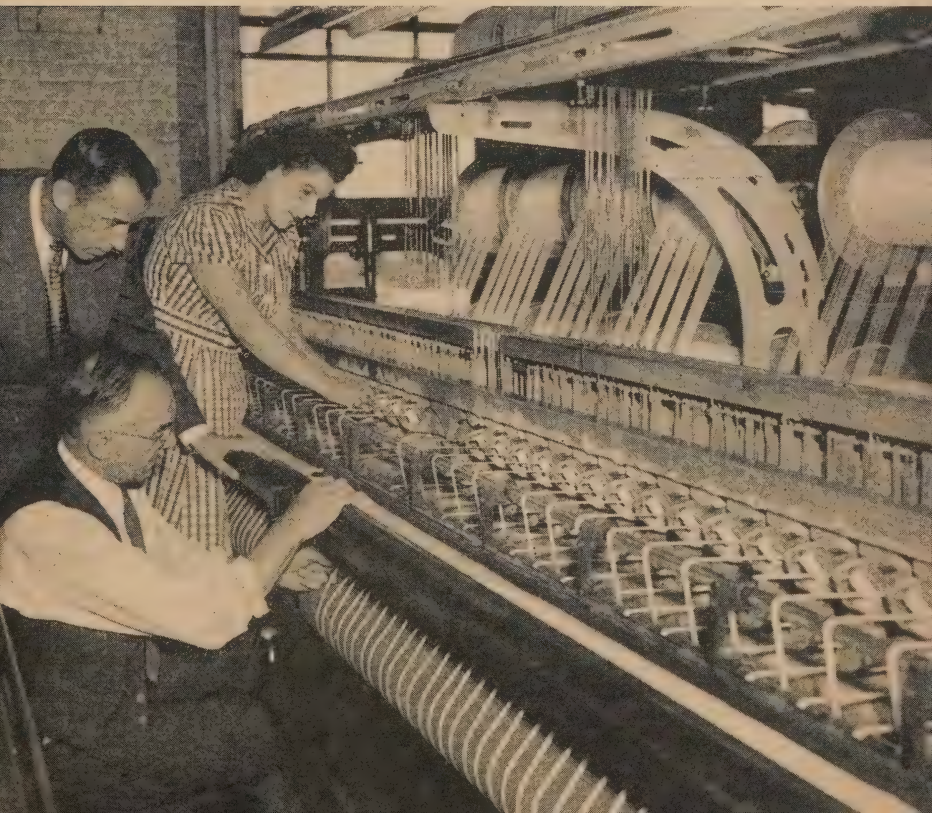
Quebec ranks second in importance contributing about 30 p.c. of the total value of manufactured products. The assets of Quebec that have tended to develop manufacturing industries include its natural resources of forests, water powers, minerals, and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going vessels to reach its main centres of population. Added to these natural advantages, there is a stable and industrious population, which is an important factor in industries such as textiles, clothing, boots and shoes, etc., where a large labour force is required. The production of pulp and paper occupies the premier position. In addition to accounting for about 11 p.c. of the gross value of Quebec manufactures, it furnishes about 48 p.c. of the total for Canada of this industry. Other industries in which Quebec predominates are: tobacco, cigars and cigarettes; cotton yarn and cloth; women's factory clothing; synthetic fibres and silk; leather boots and shoes; men's factory clothing; railway rolling-stock; fur goods; and hosiery and knitted goods. Quebec is an outstanding manufacturing province by reason of its large individual industries and not so much on account of a diversity of products.

British Columbia is the third most important manufacturing province of Canada with 8 p.c. of the total. The importance of the forests in the industrial life of the Province is emphasized by the fact that sawmilling, which accounts for about 23 p.c. of the total production, ranks as the leading industry, while pulp and paper with 8 p.c. of the total ranks second. Third in importance is fish curing and packing, based principally on the estuarial salmon fisheries; British Columbia accounts for 49 p.c. of the total fisheries production of Canada. Slaughtering and meat packing is in fourth place and petroleum products in fifth place.

In the Prairie Provinces the leading industries are those based on their agricultural resources—the grain-growing, cattle-raising and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor-vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development in the refining industry. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water powers, forests and, more recently, minerals, have given rise to quite a diversification of industrial production.

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*Inspecting nylon ribbon as it comes off the loom.*





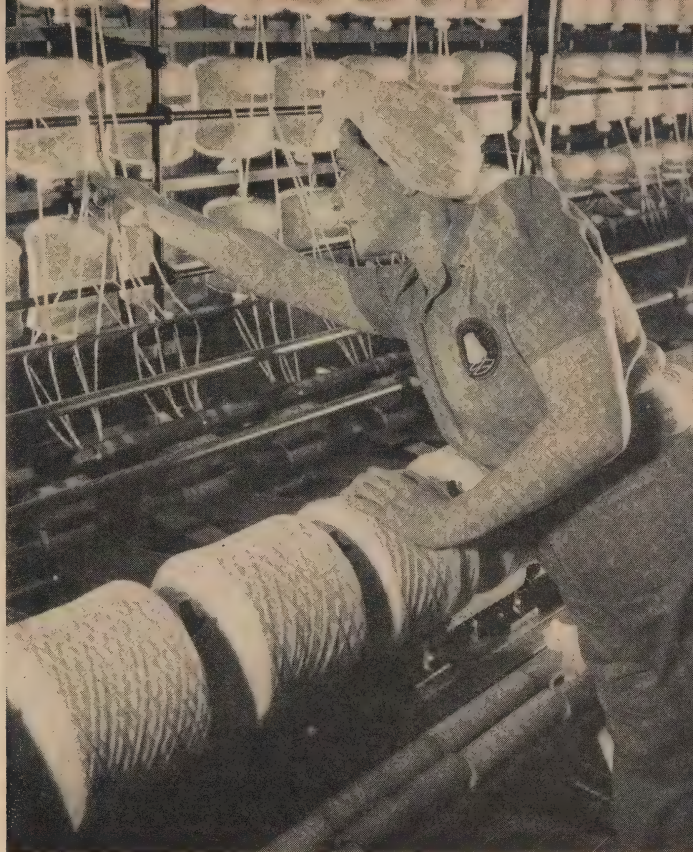
Considering the Prairie Provinces as a unit, the following industries account for over 50 p.c. of total production: slaughtering and meat packing, flour and feed mills, butter and cheese, and petroleum products.

The Maritime Provinces comprise the smallest manufacturing unit of Canada. In Prince Edward Island the predominant agricultural and fishery resources make butter and cheese, and fish curing and packing the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries, as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of primary iron and steel, shipbuilding and repairs, fish curing and packing, sawmills, pulp and paper, and butter and cheese. In addition to this, important petroleum refineries and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, although fish and agricultural products, sugar refining and railway rolling-stock add to the varied output.

**Statistics of Manufactures, by Provinces and Standard Classification Groups, 1948**

| Province and Group   | Estab-<br>lish-<br>ments | Employees        | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|--|--------------------------|------------------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|  | No.                      | No.              | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Prince Edward Island..   | 254                      | 1,759            | 2,073                    | 12,634                  | 4,217                       | 17,074                        |
| Nova Scotia.....   | 1,440                    | 30,348           | 52,553                   | 140,761                 | 95,774                      | 246,111                       |
| New Brunswick.....   | 1,067                    | 24,325           | 43,918                   | 134,410                 | 91,404                      | 234,579                       |
| Quebec.....  | 11,122                   | 383,966          | 756,216                  | 1,954,111               | 1,534,214                   | 3,599,306                     |
| Ontario.....   | 12,127                   | 551,658          | 1,210,640                | 3,118,084               | 2,486,867                   | 5,743,140                     |
| Manitoba.....  | 1,400                    | 40,557           | 79,303                   | 296,606                 | 157,646                     | 462,201                       |
| Saskatchewan.....  | 926                      | 10,950           | 21,038                   | 172,423                 | 45,053                      | 221,363                       |
| Alberta.....   | 1,568                    | 25,692           | 49,737                   | 253,754                 | 107,134                     | 366,090                       |
| British Columbia.....  | 3,526                    | 86,614           | 193,980                  | 549,275                 | 417,675                     | 985,592                       |
| Yukon and Northwest<br>Territories.....                        | 17                       | 137              | 346                      | 818                     | 379                         | 1,330                         |
| <b>Totals.....</b>   | <b>33,447</b>            | <b>1,156,006</b> | <b>2,409,809</b>         | <b>6,632,881</b>        | <b>4,940,369</b>            | <b>11,876,790</b>             |
| Food and beverages....   | 8,686                    | 168,893          | 311,235                  | 2,034,844               | 766,434                     | 2,839,531                     |
| Tobacco and tobacco<br>products.....                           | 79                       | 10,459           | 19,550                   | 95,851                  | 57,667                      | 153,993                       |
| Rubber products.....   | 56                       | 21,703           | 48,273                   | 84,223                  | 106,999                     | 194,112                       |
| Leather products.....  | 757                      | 34,291           | 55,122                   | 114,819                 | 86,947                      | 203,758                       |
| Textile products (except<br>clothing).....                     | 740                      | 75,348           | 140,008                  | 329,040                 | 260,681                     | 600,951                       |
| Clothing.....  | 3,100                    | 115,105          | 191,866                  | 361,216                 | 345,029                     | 709,689                       |
| Wood products.....   | 10,495                   | 124,306          | 214,742                  | 428,913                 | 401,401                     | 839,045                       |
| Paper products.....  | 522                      | 75,980           | 197,397                  | 485,237                 | 509,993                     | 1,061,359                     |
| Printing, publishing and<br>allied trades.....                 | 2,496                    | 54,541           | 119,087                  | 96,384                  | 208,208                     | 307,345                       |
| Iron and steel products.<br>Transportation equip-<br>ment..... | 2,263                    | 170,071          | 400,878                  | 570,290                 | 709,347                     | 1,320,527                     |
| Non-ferrous metal pro-<br>ducts.....                           | 587                      | 102,569          | 256,939                  | 512,814                 | 421,808                     | 947,099                       |
| Electrical apparatus and<br>supplies.....                      | 503                      | 46,048           | 108,778                  | 556,238                 | 248,225                     | 844,598                       |
| Non-metallic mineral<br>products.....                          | 314                      | 53,873           | 122,113                  | 180,344                 | 241,333                     | 425,725                       |
| Products of petroleum<br>and coal.....                         | 934                      | 27,278           | 58,816                   | 72,577                  | 134,897                     | 232,148                       |
| Chemical products.....   | 75                       | 13,678           | 34,766                   | 369,035                 | 97,064                      | 491,961                       |
| Miscellaneous manufac-<br>turing industries.....               | 1,026                    | 39,548           | 89,325                   | 293,041                 | 268,818                     | 579,827                       |
|  | 814                      | 22,315           | 40,906                   | 48,007                  | 75,510                      | 125,116                       |

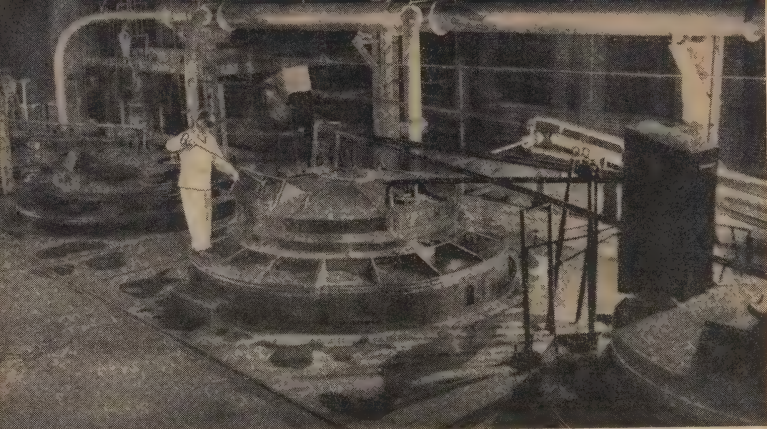
*The knitting mills of Ontario and Quebec, where the complete cycle of manufacture is carried on from the raw wool, spinning, weaving and knitting to the finished article, employ in the neighbourhood of 25,000 workers, a large proportion of whom are women.*



**Textile Industries.**—Rooted in the traditional handicrafts and earliest industrial enterprises on this Continent, nourished on protective political-economic policies and matured during two world wars, the Canadian textile industry stands to-day as one of the basic industrial factors in the national economy in terms of employment, wage and price levels and social development. Despite the threats of increased imports and the loss of export markets the output of the industry has increased with the national market and the dynamic movement of the Canadian economy. Moreover, new capital investment in the industry in 1949 was maintained at the same high level as the previous year, a level of approximately \$47,000,000 for the combined clothing and textile products groups, in addition to \$26,000,000 for repair and maintenance expenditures.

The advance recorded in 1949 was achieved in the face of serious difficulties and conflicting trends. In general the industry faced rising costs of material and labour and sold its products in an extremely competitive market. From the beginning of the year exports began to decline as foreign lending programs came to a close. After Apr. 1 the 25-p.c. increase in United States dollar quotas resulted in a rush of imported cotton piece goods. Following devaluation, Canadian wage rates were sometimes as much as 245 p.c. higher than their United Kingdom counterparts. While high prices of natural





Caustic soda plant at Shawinigan Falls, Que. Caustic soda and chlorine, together with sulphuric acid, are the most important heavy chemicals used in industry to-day. The ever-increasing growth of production of these chemicals is an index to the industrial growth of Canada.

fibres were somewhat offset by an alternative use of synthetics, the adjustment involved problems of renewing equipment, uncertain buying and unknown consumer reaction. Moreover, negotiations at the Annecy Conference suggested further uncertainties in regard to tariff policy. Canadians in 1949 were among the world's largest consumers of fabrics and yarns and Canada also ranked first in per capita consumption of woollen goods and first as an importer of cotton textiles. On the other hand it was found that textile sales had not risen in proportion to over-all increases in population and purchasing power, due to the pronounced tendency of consumers to allocate a greater share of their income to durable goods such as automobiles, household machinery and home furnishings.

Preliminary statistics indicate that production for the textile group as a whole will increase from a record-breaking 1948 figure of \$1,316,254,000 to \$1,343,971,000 in 1949. Clothing and fur products will increase from \$707,177,000 to \$718,016,000 while primary and miscellaneous textiles will increase from \$609,077,000 in 1948 to \$625,955,000 in 1949. Employment and wages will also establish new records in 1949 with more than 190,000 employees in receipt of over \$350,000,000 in wages.

This general expansion by no means applies equally to the various components of the industry. While the clothing industry recorded solid gains, the hosiery and knitted goods industry suffered a 10-p.c. reduction in employment and production. The woollen industry too did little more than hold its own in the altered circumstances following devaluation. On the other hand cotton textiles continued their growth and synthetic textiles established gains of over 15 p.c.

**Chemicals and Allied Products.**—Canada's chemical and allied industries have shown impressive growth in the past decade. Since 1940 there has been a three-fold increase in output value from \$193,900,000 to \$594,800,000 (preliminary), though almost half of that gain was due to increases in commodity prices. The index of volume of production advanced over this period from 120.1 to 182.2, indicating a physical expansion in output of approximately 51 p.c.

The value of output in 1949 was 2.6 p.c. higher than the former peacetime high of \$579,800,000 reached in 1948. Except for soaps, cosmetics, adhesives



and vegetable oils, the production and domestic consumption were greater than in any other year. Shipments for export, however, were 11.4 p.c. lower than in 1948.

Ten of the 14 industries in this group showed substantial gains in output in 1949 compared with 1948. The percentage increases were as follows: coal tar distillation, 17.7; polishes, 15.1; primary plastics, 14.4; medicinals, 11.1; miscellaneous, 8.1; compressed gases, 4.7; fertilizers, 5.9; inks, 5.9; heavy chemicals, 2.6; and paints, 1.7. Output of the soaps industry declined 4.9 p.c.; adhesives, 20.1 p.c.; vegetable oils, 12.4 p.c.; and toilet preparations 1.6 p.c.

In the entire group in 1949 there were 1,000 plants with 40,506 employees who received in salaries and wages \$95,800,000. The 513 works in Ontario accounted for 52 p.c. of the employees and 56 p.c. of the production, and the 326 establishments in Quebec accounted for 37 p.c. of the workers and 44 p.c. of the output value. British Columbia had 66 plants with an aggregate output of \$49,000,000. From the standpoint of employment, the medicinals industry was most important with 8,099 workers, the miscellaneous industry next with 6,719, then the heavy chemicals with 6,036, paints with 5,501 and soaps with 3,659.

Exports were lower again for the third successive year, amounting to \$70,700,000 in 1949 compared with \$79,800,000 in 1948 and \$83,800,000 in 1947. Fertilizers accounted for 56 p.c. of the total exports and the other principal items included synthetic resins, sodium compounds, medicinals, (including penicillin and streptomycin), acids, calcium compounds and pigments and colours.

Imports of chemicals and allied products rose 10 p.c. in 1949 to \$130,600,000, the gains being mainly in drugs and pharmaceuticals, cellulose plastics, fertilizers and miscellaneous chemicals. Eighty-eight percent of the purchases were from the United States and 6.5 p.c. from the United Kingdom.

**Iron and Steel and Their Products.**—Manufacturers of iron and steel and their products in Canada reported a gross production valued at

*Operators drawing out the ribbon of hot steel at the Selkirk, Man., rolling mills.*



\$2,472,000,000 (preliminary) in 1949, a gain of 9 p.c. over the \$2,262,000,000 reported for 1948. Substantial increases were recorded by 17 of the 20 industries in the group but the principal gains were for farm implements which advanced \$30,000,000, motor-vehicles which increased \$89,000,000, motor-vehicle parts which gained \$29,000,000, and primary iron and steel which was up \$21,000,000. There was a decline of \$27,000,000 in the ship-building industry.

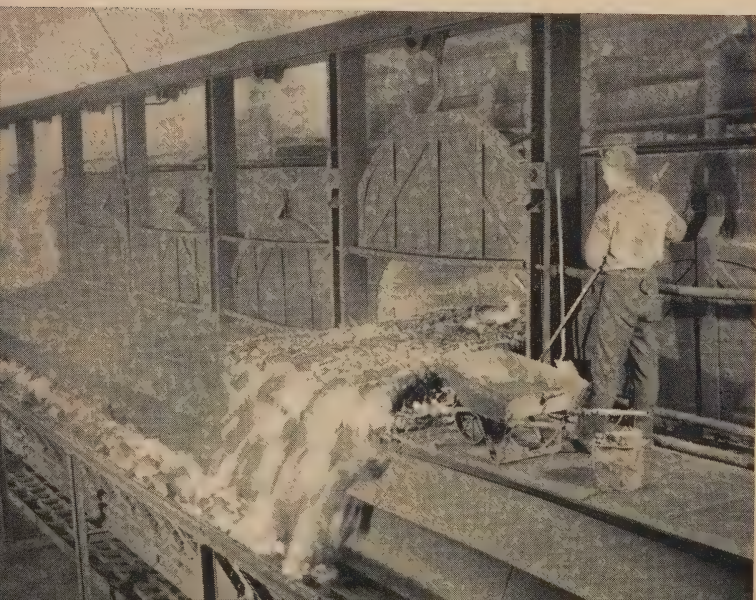
The number of motor-vehicles produced in 1949 was 292,584, which was more than in any other year even the previous high of 270,191 in 1941. Passenger cars numbered 193,556, trucks 98,303 and buses 725. Of this production, 16,496 passenger cars were for export and 13,313 trucks. All the buses were for the domestic market.

Steel production at 3,190,000 net tons was almost equal to the record tonnage of 1948. It included 3,095,000 tons of ingots and 95,000 tons of steel castings. The rated capacity of Canada's steel furnaces at the year-end was 4,000,000 net tons. Output of pig iron was the highest ever attained at 2,155,000 tons. The 14 blast furnaces in Canada have a rated capacity of 2,745,000 tons.

The activity in the aircraft and parts industry in 1949 resulted in an output value of \$61,100,000, 34 p.c. greater than in 1948. The five assembly plants in this industry produced 117 complete aircraft valued at \$55,300,000.

A total of 2,906 factories operated in this group in 1949, employing a monthly average of 268,000 persons who were paid \$678,500,000 in salaries and wages.

Exports of products of the iron and steel industries were valued at \$293,000,000 in 1949, 4 p.c. higher than in 1948. Of the 1949 exports, 37 p.c. went to the United States and 8 p.c. to the United Kingdom. Imports of iron and steel and their products, including transportation equipment except aircraft, carriages and wagons, totalled \$892,000,000 in 1949, most of which came from the United States.



"Pushing" a coke oven into the carrier towards the quencher in a coal and coke plant, Michel, B.C.



## Leading Individual Industries

The leading industries of Canada, from the standpoint of gross value of production, are shown in the following table. Pulp and paper, slaughtering and meat-packing and non-ferrous metal smelting and refining have established themselves in first, second and third place, respectively, since the end of the War. These are followed in order by industries engaged mainly in the production of consumer goods for which post-war demand has been high. As compared with 1947, the ranking of the fifteen leading industries has changed little. Electrical apparatus and supplies, petroleum products, railway rolling-stock and cotton yarn and cloth all moved higher on the list in 1948.

### Principal Statistics of Fifteen Leading Industries, 1948

| Industry  | Estab-<br>lish-<br>ments | Employees | Salaries<br>and<br>Wages | Cost<br>of<br>Materials | Net<br>Value of<br>Products | Gross<br>Value of<br>Products |
|---|--------------------------|-----------|--------------------------|-------------------------|-----------------------------|-------------------------------|
|   | No.                      | No.       | \$'000                   | \$'000                  | \$'000                      | \$'000                        |
| Pulp and paper.....   | 117                      | 51,924    | 151,662                  | 349,244                 | 412,770                     | 825,857                       |
| Slaughtering and meat-<br>packing.....  | 140                      | 21,879    | 51,828                   | 593,530                 | 92,329                      | 689,546                       |
| Non-ferrous metal smel-<br>ting and refining.....                               | 17                       | 19,701    | 52,276                   | 393,264                 | 146,830                     | 576,383                       |
| Electrical apparatus and<br>supplies.....                                       | 314                      | 53,873    | 122,113                  | 180,344                 | 241,333                     | 425,725                       |
| Sawmills.....   | 7,035                    | 56,756    | 95,065                   | 208,568                 | 196,936                     | 409,267                       |
| Automobiles.....  | 11                       | 24,703    | 68,477                   | 249,754                 | 145,601                     | 398,056                       |
| Petroleum products....  | 44                       | 8,495     | 22,061                   | 314,149                 | 63,137                      | 394,934                       |
| Butter and cheese.....  | 1,951                    | 21,824    | 37,916                   | 299,188                 | 73,102                      | 378,230                       |
| Flour and feed mills....  | 924                      | 7,124     | 14,055                   | 269,249                 | 39,294                      | 310,768                       |
| Primary iron and steel..  | 55                       | 29,367    | 77,357                   | 132,779                 | 125,276                     | 282,167                       |
| Railway rolling-stock..   | 38                       | 31,371    | 77,861                   | 127,092                 | 105,663                     | 237,382                       |
| Machinery.....  | 339                      | 29,963    | 69,523                   | 86,362                  | 143,759                     | 232,605                       |
| Clothing, women's fac-<br>tory.....   | 1,160                    | 33,416    | 59,363                   | 114,028                 | 108,271                     | 222,814                       |
| Clothing, men's, fac-<br>tory.....  | 563                      | 31,092    | 50,988                   | 111,670                 | 96,772                      | 209,028                       |
| Cotton yarn and cloth..   | 47                       | 24,813    | 45,955                   | 119,738                 | 80,069                      | 203,446                       |
| <b>Totals, Fifteen Lead-<br/>ing Industries—</b>                                |                          |           |                          |                         |                             |                               |
| 1948.....   | 12,755                   | 446,301   | 996,500                  | 3,548,959               | 2,071,142                   | 5,796,208                     |
| 1947.....   | 15,229                   | 430,536   | 838,241                  | 2,877,231               | 1,801,773                   | 4,825,558                     |
| <b>Grand Totals, All In-<br/>dustries—</b>                                      |                          |           |                          |                         |                             |                               |
| 1948.....   | 33,447                   | 1,156,006 | 2,409,809                | 6,632,881               | 4,940,369                   | 11,876,790                    |
| 1947.....   | 32,734                   | 1,131,750 | 2,085,926                | 5,534,280               | 4,292,056                   | 10,081,027                    |
| Percentages of Fifteen<br>Leading Industries<br>to All Industries,<br>1948..... | 38.1                     | 38.6      | 41.3                     | 53.5                    | 41.9                        | 48.8                          |

## Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

The extent to which the manufacturing industries of Canada are concentrated in urban centres is indicated by the fact that in Ontario 94 p.c. of the gross manufacturing production of the Province in 1948 was contributed



by cities and towns having a gross production of over \$1,000,000 each. In Quebec the percentage was 93 while in the Maritime Provinces and British Columbia, where sawmilling, fish-packing and dairying are leading industries, the proportions were 71 and 59 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

**Urban Centres with Gross Manufacturing Production of Over  
\$40,000,000 in 1948**

| Urban Centre                | Estab-<br>lish-<br>ments | Em-<br>ployees | Salaries<br>and<br>Wages | Cost of<br>Fuel and<br>Electricity | Cost of<br>Materials | Gross<br>Value of<br>Production |
|-----------------------------|--------------------------|----------------|--------------------------|------------------------------------|----------------------|---------------------------------|
|                             | No.                      | No.            | \$'000                   | \$'000                             | \$'000               | \$'000                          |
| Montreal, Que. ....         | 3,887                    | 180,098        | 368,191                  | 20,269                             | 841,049              | 1,550,246                       |
| Toronto, Ont. ....          | 3,683                    | 154,197        | 335,143                  | 16,501                             | 804,970              | 1,475,762                       |
| Hamilton, Ont. ....         | 526                      | 53,370         | 124,016                  | 19,584                             | 259,801              | 519,132                         |
| Windsor, Ont. ....          | 271                      | 32,729         | 85,354                   | 5,100                              | 231,707              | 413,750                         |
| Vancouver, B.C. ....        | 1,136                    | 33,815         | 75,301                   | 4,300                              | 211,727              | 360,749                         |
| Winnipeg, Man. ....         | 765                      | 27,906         | 54,380                   | 3,133                              | 157,380              | 264,023                         |
| Montreal East, Que. ....    | 22                       | 4,140          | 10,225                   | 9,350                              | 177,358              | 221,976                         |
| Oshawa, Ont. ....           | 54                       | 9,410          | 24,420                   | 1,330                              | 77,488               | 142,842                         |
| Kitchener, Ont. ....        | 178                      | 14,917         | 30,817                   | 1,485                              | 75,262               | 138,276                         |
| Sarnia, Ont. ....           | 47                       | 6,848          | 16,894                   | 8,326                              | 85,461               | 128,501                         |
| London, Ont. ....           | 267                      | 15,118         | 31,020                   | 1,710                              | 60,149               | 128,024                         |
| Port Colborne, Ont. ....    | 22                       | 2,603          | 6,683                    | 2,560                              | 107,659              | 127,784                         |
| Calgary, Alta. ....         | 248                      | 7,852          | 16,921                   | 2,100                              | 88,245               | 123,027                         |
| Edmonton, Alta. ....        | 245                      | 8,216          | 17,012                   | 922                                | 87,343               | 121,625                         |
| Brantford, Ont. ....        | 141                      | 14,210         | 31,574                   | 1,577                              | 63,218               | 119,281                         |
| Quebec, Que. ....           | 392                      | 14,484         | 24,369                   | 3,321                              | 65,470               | 118,061                         |
| Peterborough, Ont. ....     | 97                       | 10,001         | 23,070                   | 1,130                              | 59,898               | 104,809                         |
| New Toronto, Ont. ....      | 36                       | 6,805          | 17,916                   | 1,595                              | 56,593               | 100,040                         |
| Sault Ste. Marie, Ont. .... | 54                       | 6,836          | 18,102                   | 5,856                              | 52,760               | 96,155                          |
| St. Boniface, Man. ....     | 69                       | 3,599          | 8,216                    | 683                                | 74,902               | 95,533                          |
| Three Rivers, Que. ....     | 80                       | 7,539          | 17,148                   | 6,053                              | 42,419               | 90,164                          |
| Welland, Ont. ....          | 63                       | 8,986          | 23,340                   | 4,561                              | 39,877               | 89,665                          |
| New Westminster, B.C. ....  | 115                      | 6,615          | 14,390                   | 859                                | 42,559               | 76,755                          |
| Ottawa, Ont. ....           | 213                      | 9,930          | 19,836                   | 1,616                              | 36,010               | 75,480                          |
| St. Catharines, Ont. ....   | 105                      | 9,383          | 21,855                   | 1,161                              | 31,925               | 70,232                          |
| Leaside, Ont. ....          | 45                       | 7,009          | 16,151                   | 878                                | 37,129               | 70,212                          |
| Shawinigan Falls, Que. .... | 42                       | 5,748          | 13,737                   | 6,937                              | 28,477               | 70,084                          |
| Niagara Falls, Ont. ....    | 71                       | 6,239          | 15,123                   | 4,607                              | 27,272               | 69,086                          |
| Saint John, N.B. ....       | 108                      | 3,932          | 7,207                    | 1,256                              | 46,356               | 63,575                          |
| Sherbrooke, Que. ....       | 98                       | 8,093          | 14,875                   | 1,011                              | 28,411               | 60,794                          |
| Lachine, Que. ....          | 44                       | 7,930          | 19,223                   | 962                                | 22,779               | 55,439                          |
| Chatham, Ont. ....          | 69                       | 3,232          | 7,170                    | 857                                | 37,933               | 53,372                          |
| Cornwall, Ont. ....         | 46                       | 6,482          | 13,718                   | 2,680                              | 20,769               | 51,230                          |
| Kingston, Ont. ....         | 55                       | 5,619          | 11,796                   | 1,111                              | 21,809               | 51,155                          |
| Regina, Sask. ....          | 108                      | 2,802          | 5,840                    | 1,385                              | 37,114               | 51,046                          |
| Drummondville, Que. ....    | 39                       | 8,297          | 15,012                   | 1,613                              | 17,779               | 49,893                          |
| Saskatoon, Sask. ....       | 96                       | 2,492          | 5,022                    | 552                                | 36,573               | 49,365                          |
| Fort William, Ont. ....     | 75                       | 3,708          | 9,943                    | 2,127                              | 22,678               | 46,954                          |
| Sydney, N.S. ....           | 41                       | 5,933          | 13,874                   | 3,577                              | 23,693               | 46,603                          |
| Guelph, Ont. ....           | 103                      | 6,250          | 12,694                   | 789                                | 22,784               | 44,873                          |
| Halifax, N.S. ....          | 122                      | 6,059          | 11,326                   | 729                                | 22,687               | 44,859                          |
| Moose Jaw, Sask. ....       | 41                       | 1,518          | 3,229                    | 531                                | 37,571               | 44,621                          |
| Lasalle, Que. ....          | 25                       | 2,648          | 5,664                    | 1,046                              | 22,746               | 42,879                          |

## Employment in Manufactures

The Dominion Bureau of Statistics conducts monthly surveys of employment, payrolls and man-hours in manufacturing establishments, and in the major non-manufacturing industries. The surveys are, in the main, limited to firms usually employing 15 persons or over. In view of the generally

*Beef carcasses in an Alberta packing plant. Practically all meat is sold in fresh carcass form.*



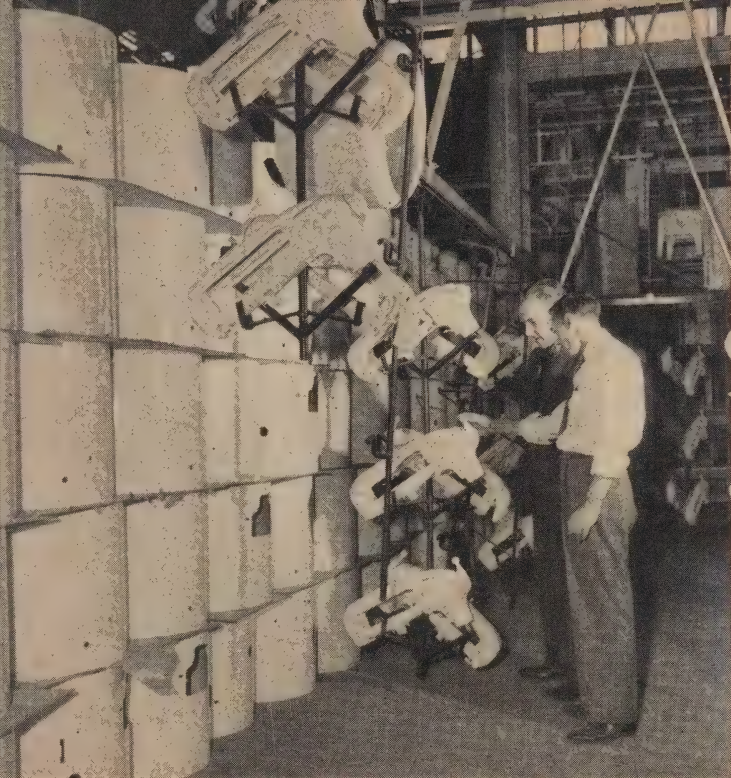
large unit of operations in manufacturing, the coverage of total employment in that division in the monthly surveys is particularly high, exceeding 85 p.c.

The general index number of employment in manufacturing as a whole in the first nine months of 1950 was maintained at a high level, averaging 203·7, as compared with 204·7 in the same period in 1949, 203·8 in 1948 and 197·1 in 1947. Labour-management relations in manufacturing were generally satisfactory in the period under review, the loss in working time in the first nine months of 1950 being substantially less than in the same period of 1949. On the whole, materials were in good supply, although there were temporary shortages in some areas such as that resulting from industrial disputes early in the year in United States automotive plants, which affected certain branch factories in Canada. Stockpiles in many plants were also depleted during the Canadian railway strike in the latter part of August.

Reflecting the effect of the holiday period, the index number of employment in manufacturing showed the customary decline at Jan. 1, 1950. A further reduction in activity was indicated at Feb. 1, followed by successive increases in the remaining months of the period under review. The index of employment in manufacturing rose by 12·7 points from Jan. 1 to Sept. 1, as compared with a gain of 6·5 points in a similar comparison in 1949. The index of employment in manufacturing at Sept. 1, 1950, was 3·2 points above the figure recorded 12 months earlier.

In the first nine months of 1950, the employment index in heavy manufacturing industries taken as a unit increased by 15·4 points, as compared with an advance of 10·3 points in the non-durable manufacturing industries taken





*Paint inspection shop of a large Montreal plant. Technical service-man checks the finish on washing-machine parts as they come from the dryer.*

as a whole. In the durable goods section, gains in employment were reported in lumber, clay, glass and stone products and electrical apparatus divisions; the advance in the last-named industry was particularly marked. The changes indicated in iron and steel and non-ferrous metal products were slight. Improvement in employment was reported in the edible animal, pulp and paper, rubber, beverages, chemicals, and non-metallic mineral sections of the non-durable manufacturing industries.

As compared with one year earlier, employment indexes for manufacturing at Sept. 1, 1950, were higher in all areas except the Prairie Provinces, the increases ranging from 0.1 point in Quebec to 9.6 points in British Columbia. The index for the Prairie Provinces declined one point in the same period. Increased activity was reported in several of the larger cities, notably Quebec, Toronto, Hamilton, Windsor and Vancouver.

Of the total employees reported by manufacturers participating in the monthly survey at Sept. 1, 1950, 223 per 1,000 were women, a slightly lower proportion than at the same date one year earlier; in that comparison, there was an increase of 2.1 p.c. in the number of men employed in manufacturing firms, accompanied by a decline in the number of women on their staffs. These variations were largely due to changes in the industrial distribution of workers within the manufacturing category in the 12 months.

The advance of 12.7 points in the employment index for manufacturing as a whole from Jan. 1 to Sept. 1, 1950, was accompanied by a gain of 25.6



points in the payroll index in the same period. Upward adjustment in the wage rates were reported by many firms. With the exception of some slight seasonal declines, the payroll index in this group of industries has increased steadily from early in 1946. The average weekly earnings of the wage-earners and salaried personnel employed by the co-operating manufacturers were \$46.26 at Sept. 1, 1950, compared with \$44.20 at the same date in 1949 and \$41.46 in 1948.

The hours worked by hourly rated wage-earners in manufacturing averaged 41.9 in the week of Sept. 1, 1950. One year earlier, the average was 42.4 hours. The average hourly earnings, standing at 104.4 cents, were at a maximum, exceeding the Sept. 1, 1949, figure by 6.3 cents. The average weekly wages also reached a new peak, \$43.74 at Sept. 1, 1950.

*Monthly Indexes of Employment in Manufactures, 1944-50*

(1926 = 100)

| Month        | 1944  | 1945  | 1946  | 1947  | 1948  | 1949  | 1950  |
|--------------|-------|-------|-------|-------|-------|-------|-------|
| Jan. 1.....  | 226.4 | 212.7 | 179.9 | 190.6 | 199.9 | 202.7 | 199.7 |
| Feb. 1.....  | 227.3 | 215.0 | 182.8 | 193.9 | 200.7 | 202.6 | 198.9 |
| Mar. 1.....  | 226.5 | 214.3 | 182.6 | 194.5 | 202.6 | 203.0 | 199.7 |
| Apr. 1.....  | 225.5 | 212.9 | 184.9 | 195.2 | 202.0 | 203.0 | 200.4 |
| May 1.....   | 223.2 | 210.6 | 186.2 | 195.8 | 201.8 | 203.3 | 200.8 |
| June 1.....  | 223.1 | 209.0 | 184.7 | 197.6 | 203.6 | 205.1 | 204.2 |
| July 1.....  | 225.8 | 207.2 | 187.2 | 200.6 | 207.2 | 207.4 | 208.0 |
| Aug. 1.....  | 225.0 | 204.1 | 184.2 | 202.5 | 206.5 | 206.4 | 209.4 |
| Sept. 1..... | 226.2 | 198.6 | 187.2 | 203.3 | 209.5 | 209.2 | 212.4 |
| Oct. 1.....  | 223.7 | 188.3 | 188.4 | 203.6 | 210.0 | 208.6 | ..    |
| Nov. 1.....  | 221.3 | 186.3 | 192.8 | 205.1 | 208.3 | 206.5 | ..    |
| Dec. 1.....  | 221.3 | 186.3 | 194.2 | 205.1 | 207.9 | 204.2 | ..    |

*Galvanizing pipe elbows. This process adds a protective coat of zinc to resist rust and corrosion.*





Toronto's subway under construction. In the foreground the decking has been completed, while for the next two blocks top-lift excavation is under way. Beyond that traffic is proceeding normally.

## ★ Construction

The construction industry had not recovered from the depressed conditions of the early 1930's when war production began to drain off materials and labour from peacetime projects. This was particularly evident in residential construction. Increased personal incomes allowed many families to expand into separate or larger living quarters while, at the same time, marriage rates were high. Since the end of the War considerable progress has been made in alleviating the shortage of housing and the number of new dwelling units completed annually is now exceeding the net increase in the number of households.

### *Government Assistance*

The Federal Government has administered legislation designed to assist in the financing and improvement of housing in Canada since 1935. There are four Acts of Parliament in effect at the present time under which it is possible to obtain help from the Federal Government for the purpose of building houses: the National Housing Act, 1944; the Farm Improvement Loans Act; the Farm Loan Act, 1927; and the Veterans' Land Act. The first is outlined below while the last is dealt with under Veterans Affairs, p. 96. The other two Acts provide direct and indirect financial assistance to farmers for a wide range of purposes, of which housing represents only a small part.

**Central Mortgage and Housing Corporation.**—To provide co-ordination in the housing field, the Central Mortgage and Housing Corporation was incorporated by an Act passed in December, 1945. Its purpose and functions are to administer the National Housing Act, 1944, and earlier housing legislation and to provide facilities for the rediscounting of mortgages by lending institutions. Since March, 1947, the Corporation has administered a taxation incentive plan for rental housing construction and, in 1948, it took over the functions of Wartime Housing, Limited. Most of the housing activities of the Federal Government are now being administered by the Corporation.

### *National Housing Act, 1944*

The National Housing Act, 1944, was designed to stimulate the construction of housing for both owner-occupancy and rental. It offers various forms of assistance as summarized below.

**Joint Loans.**—Loans are made jointly by the Central Mortgage and Housing Corporation and approved lending institutions to prospective home owners and to builders of houses for sale to occupants or for rental. Houses must be constructed according to sound, prescribed standards. Joint loans of up to 80 p.c. of the lending value of the dwelling may be made. The Central Mortgage and Housing Corporation may grant an additional loan of one-sixth of the joint loan to prospective home-owners conditional upon the cost or selling price being fair and reasonable. The maximum joint loan on any dwelling unit is \$8,500. Interest payable by the borrower is 4½ p.c. per



annum. The term of the loan may be up to 30 years. Payments of principal, interest and taxes are made in monthly instalments comparable to rent. Twenty-five per cent of the money borrowed is advanced to the lending institution by the Corporation.

Joint loans are also available for co-operative housing, for farm housing, and under the Integrated Housing Plan. For farm housing, the amounts of loan are determined on a different basis than for urban housing. Under the Integrated Housing Plan, builders may obtain joint loans for the erection of groups of houses for sale primarily to veterans at an agreed maximum price; the Corporation is obligated to purchase any houses unsold after a period of one year following completion.

In the first eight months of 1950, a total of 31,379 units were approved for joint loans, involving \$217,400,000 or an average loan per unit of about \$5,370. These figures compare with 16,287 units, involving \$87,500,000, or an average loan per unit of nearly \$6,930 for the corresponding period of 1949.

**Direct Loans.**—The Act provides loans by the Central Mortgage and Housing Corporation to limited dividend companies for the construction of low-rental housing. Such loans may be for 90 p.c. of the lending value of the project at an interest rate of 3 p.c. per annum. The period of amortization may be extended to 50 years.

The Corporation is authorized to make direct advances to mining, lumbering and fishing companies in outlying areas, to assist in providing homes for their employees. Loans are made to, or are guaranteed by, the company concerned; the term of the loan may be as long as 15 years, the rate of interest is 4 p.c., and the company may not earn on its investment in the housing project more than 4 p.c. annually. The maximum loan is 80 p.c. of the lending value. In the case of rental insurance projects, the maximum loan is 85 p.c. of lending value. The Act also provides that the Corporation may make direct loans in other cases where a joint loan cannot be obtained.

**Guarantees.**—Loans guaranteed by the Central Mortgage and Housing Corporation may be made by banks or approved instalment credit agencies for home improvement and home extension purposes. These loans are intended to assist home owners to finance additional dwelling units in existing homes. They bear interest at 5 p.c. The section dealing with home improvement loans has not been proclaimed owing to the shortage of building materials.

Life insurance companies under federal jurisdiction are authorized to invest up to 5 p.c. of their Canadian assets in a low- or moderate-rental housing project, and are guaranteed a net return of  $2\frac{1}{2}$  p.c. per annum on such investments. Guarantees to lending institutions may be made by the Corporation ensuring a return of  $2\frac{1}{2}$  p.c. per annum on approved investments in the purchase and improvement of land to be used for residential development. On payment of an annual premium, the Corporation may guarantee a minimum rental income for approved projects covering periods of not more than 30 years.

**Direct Construction.**—Wartime Housing, Limited, was a Crown company established in 1941 to build houses for war workers. In 1947, the supervision of the company—at this time building rental housing for veterans



*A sixty-house construction project. It is estimated that 85,000 new houses were completed during 1950.*

—was taken over by the Central Mortgage and Housing Corporation. Then in June, 1948, the charter of Wartime Housing, Limited, was surrendered and the company's assets transferred to Central Mortgage and Housing Corporation which was empowered to own housing projects and to engage in direct housing construction operations on its own account. In addition, the Corporation conducts the construction operations of the Department of National Defence in connection with that Department's program of providing married quarters for its permanent personnel. Under new legislation in 1949, Federal and Provincial Governments may undertake joint housing developments. Dwellings in such projects may be sold for home-ownership or rented. All costs, profits and loans on such developments are shared in the ratio of 75 p.c. by the Federal Government and 25 p.c. by the participating province.

**Research and Community Planning.**—The research plans cover the fields of: economic and statistical inquiries; technical research in materials, equipment, standards, etc.; and design. In 1947, the National Research Council formed a Division of Building Research to undertake the major portion of actual technical and laboratory research work regarding building methods and materials. Assistance has been provided, also, to university research in both the technical and social aspects of housing. The Corporation



is authorized to make grants-in-aid to municipalities in clearing and preparing land for low- or moderate-rental housing projects.

**Land Assembly.**—Because of the shortage of serviced land in almost every Canadian municipality, approved lending institutions are now enabled under the National Housing Act, but only with approval of the Central Mortgage and Housing Corporation, to purchase raw land to be used for housing development and to install the necessary services such as roads, sewers and water. The price of the land to the builder or home owner will be fixed to assure that the home owner receives full benefit of the economies effected by this method of land assembly.

## Construction Statistics

**Housing.**—It is estimated that 90,955 dwelling units were completed during 1949 as compared with 81,243 in 1948. This brings completions during the five post-war years to about 367,000 units. It is estimated that during the first seven months of 1950 an additional 42,821 dwelling units were completed and, at July 31, there were 67,097 units under construction.

*Dwelling Units Built, by Types, 1946-50*

| Type                      | 1946          | 1947          | 1948          | 1949          | 1950 <sup>1</sup> |
|---------------------------|---------------|---------------|---------------|---------------|-------------------|
|                           | No.           | No.           | No.           | No.           | No.               |
| New Construction—         |               |               |               |               |                   |
| One-family detached.....  | 50,457        | 58,883        | 61,787        | 68,422        | 32,447            |
| Two-family detached.....  | 4,206         | 5,314         | 4,560         | 7,250         | 3,738             |
| Row or terrace.....       | 510           | 608           | 1,607         | 480           | 42                |
| Apartment or flat.....    | 2,898         | 7,460         | 7,836         | 10,962        | 6,506             |
| Other.....                | 2,504         | 81            | 307           | 419           | 88                |
| Totals, New Construction. | 60,575        | 72,346        | 76,097        | 87,533        | 42,821            |
| Conversions.....          | 6,740         | 7,013         | 5,146         | 3,422         | ..                |
| <b>Grand Totals.....</b>  | <b>67,315</b> | <b>79,359</b> | <b>81,243</b> | <b>90,955</b> | <b>..</b>         |

<sup>1</sup> First seven months.



*Bulldozer levels ballast during road-construction operations.*



Over 51 p.c. of the dwelling units completed in 1949 were in the 17 metropolitan areas of 40,000 population or over; these areas contain about 36 p.c. of the population of Canada.

### ***Dwelling Units Built in Metropolitan Areas of 40,000 Population or Over, 1946-50***

(Exclusive of conversions)

| Metropolitan Area  | 1946          | 1947          | 1948          | 1949          | 1950 <sup>1</sup> |
|--------------------|---------------|---------------|---------------|---------------|-------------------|
|                    | No.           | No.           | No.           | No.           | No.               |
| Calgary.....       | 1,136         | 1,306         | 1,375         | 1,986         | 892               |
| Edmonton.....      | 832           | 1,291         | 1,784         | 2,361         | 1,417             |
| Halifax.....       | 588           | 371           | 471           | 780           | 377               |
| Hamilton.....      | 640           | 1,141         | 1,317         | 1,909         | 718               |
| London.....        | 625           | 799           | 732           | 1,204         | 878               |
| Montreal.....      | 3,571         | 6,183         | 8,814         | 14,394        | 8,700             |
| Ottawa.....        | 1,447         | 1,194         | 1,454         | 975           | 846               |
| Quebec.....        | 950           | 834           | 1,082         | 1,090         | 1,026             |
| Regina.....        | 405           | 518           | 424           | 584           | 260               |
| Saint John.....    | 242           | 457           | 134           | 345           | 271               |
| Saskatoon.....     | 682           | 750           | 773           | 370           | 200               |
| Three Rivers.....  | 214           | 157           | 533           | 647           | 207               |
| Toronto.....       | 4,204         | 3,836         | 4,143         | 6,712         | 3,799             |
| Vancouver.....     | 2,968         | 3,750         | 6,758         | 5,831         | 2,483             |
| Victoria.....      | 787           | 829           | 1,353         | 1,021         | 515               |
| Windsor.....       | 716           | 839           | 806           | 1,416         | 638               |
| Winnipeg.....      | 1,966         | 3,242         | 2,881         | 3,228         | 1,541             |
| <b>Totals.....</b> | <b>21,973</b> | <b>27,497</b> | <b>34,834</b> | <b>44,853</b> | <b>24,768</b>     |

<sup>1</sup> First seven months.

**Annual Census of Construction.**—In 1949 the total value of construction work reported to the Census of Construction amounted to \$1,920,631,000. This was an increase of 15 p.c. over 1948 and of 200 p.c. over 1941.

Although the 1949 Census of Construction was extended to cover the construction work performed by the railway and telephone companies, with their own labour forces, such data were not included in the following tables for the sake of comparability with former years. Work performed by contractors outside the companies' employ was included in 1949 as in past years.

On the other hand, figures of construction work carried out in Newfoundland have been included for the first time in 1949. Because these figures do not bulk largely in any of the grouped data, comparability with the figures for previous years is not affected to any extent.

In 1949 building construction as a whole showed an increase of 13 p.c. over 1948. Residential building, the most important group within that classification, increased by 39 p.c. Engineering construction advanced by 20 p.c. Employment afforded by the construction industry has advanced rapidly since 1944, the number of persons employed in 1949 being almost two and one-half times the number in the earlier year. Also, the average remuneration paid per employee in 1949 was \$2,242 as compared with \$1,596 in 1944.

## Value of Construction, by Types, 1941, 1948 and 1949

| Type                                       | 1941           | 1948             | 1949 <sup>1</sup> | P.C. Change—         |                      |
|--|----------------|------------------|-------------------|----------------------|----------------------|
|  |                |                  |                   | 1941-49 <sup>1</sup> | 1948-49 <sup>1</sup> |
|  | \$'000         | \$'000           | \$'000            |                      |                      |
| <b>Building—</b>                           |                |                  |                   |                      |                      |
| Residential.....                           | 87,586         | 255,756          | 356,562           | +307.1               | + 39.4               |
| Institutional.....                         | 15,175         | 121,421          | 174,462           | 3                    | + 43.7               |
| Commercial.....                            | 41,157         | 166,073          | 181,035           | +339.9               | + 9.0                |
| Industrial.....                            | 177,698        | 242,832          | 194,556           | + 9.5                | - 19.9               |
| Other.....                                 | 52,875         | 39,540           | 21,701            | - 59.0               | - 45.1               |
| Work by building trades <sup>2</sup> ..... | 64,604         | 262,366          | 301,100           | +366.1               | + 14.8               |
| <b>Totals, Building.....</b>               | <b>439,095</b> | <b>1,087,988</b> | <b>1,229,416</b>  | <b>+180.0</b>        | <b>+ 13.0</b>        |
| <b>Engineering—</b>                        |                |                  |                   |                      |                      |
| Roads, bridges, etc.....                   | 74,715         | 258,486          | 237,888           | +218.4               | - 8.0                |
| Marine construction.....                   | 31,621         | 108,104          | 141,397           | +347.2               | + 30.8               |
| Electric stations, etc.....                | 29,778         | 172,661          | 248,004           | 3                    | + 43.6               |
| Railway, telephone, telegraph.             | 2,859          | 12,532           | 15,784            | +452.1               | + 25.9               |
| Other engineering.....                     | 61,683         | 25,790           | 48,144            | - 21.9               | + 86.7               |
| <b>Totals, Engineering ..</b>              | <b>200,656</b> | <b>577,573</b>   | <b>691,215</b>    | <b>+244.5</b>        | <b>+ 19.7</b>        |
| <b>Grand Totals.....</b>                   | <b>639,751</b> | <b>1,665,561</b> | <b>1,920,631</b>  | <b>+200.2</b>        | <b>+ 15.3</b>        |

<sup>1</sup> 1949 figures include Newfoundland. <sup>2</sup> Building of all types by independent tradesmen: not classified as to type of building concerned. <sup>3</sup> Increase over 500 p.c.

## Value of Construction, by Provinces, 1941 and 1943-49

| Province        | 1941           | 1943           | 1944           | 1945           | 1946           | 1947             | 1948             | 1949             |
|-----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|
|                 | \$'000         | \$'000         | \$'000         | \$'000         | \$'000         | \$'000           | \$'000           | \$'000           |
| Nfld.....       |                |                |                |                |                |                  |                  | 13,280           |
| P.E.I.....      | 1,939          | 1,646          | 1,962          | 1,877          | 2,382          | 3,071            | 5,424            | 6,637            |
| N.S.....        | 33,153         | 40,667         | 29,833         | 29,325         | 40,858         | 52,897           | 73,507           | 82,153           |
| N.B.....        | 18,551         | 12,007         | 13,657         | 14,373         | 27,761         | 42,675           | 51,590           | 57,866           |
| Que.....        | 181,860        | 159,875        | 131,064        | 150,166        | 225,582        | 338,515          | 421,476          | 485,472          |
| Ont.....        | 261,239        | 216,715        | 165,395        | 216,545        | 347,617        | 501,651          | 682,466          | 800,791          |
| Man.....        | 29,610         | 20,191         | 19,357         | 28,383         | 43,463         | 61,254           | 82,230           | 93,212           |
| Sask.....       | 20,668         | 11,128         | 12,423         | 17,482         | 29,277         | 40,009           | 49,380           | 52,279           |
| Alta.....       | 35,296         | 25,142         | 27,569         | 32,014         | 51,573         | 67,651           | 109,448          | 125,445          |
| B.C.....        | 57,435         | 85,056         | 48,578         | 53,414         | 100,148        | 148,813          | 190,040          | 203,297          |
| <b>Canada..</b> | <b>639,751</b> | <b>572,427</b> | <b>449,838</b> | <b>543,580</b> | <b>868,661</b> | <b>1,256,536</b> | <b>1,665,561</b> | <b>1,920,631</b> |

<sup>1</sup> Includes Yukon and the Northwest Territories.

## Operating Statistics of the Construction Industry, 1941-49

| Year                    | Reports Received | Persons Employed | Salaries and Wages Paid |                    | Cost of Materials Used |                    | Total Value of Work Performed |
|-------------------------|------------------|------------------|-------------------------|--------------------|------------------------|--------------------|-------------------------------|
|                         |                  |                  | Amount                  | P.C. of Total Work | Amount                 | P.C. of Total Work |                               |
|                         | No.              | No.              | \$'000                  |                    | \$'000                 |                    | \$'000                        |
| 1941.....               | 15,031           | 176,358          | 235,632                 | 36.8               | 370,189                | 57.9               | 639,751                       |
| 1942.....               | 13,754           | 175,267          | 262,043                 | 41.2               | 324,732                | 51.1               | 635,650                       |
| 1943.....               | 12,600           | 155,300          | 251,434                 | 43.1               | 278,888                | 48.7               | 572,427                       |
| 1944.....               | 16,121           | 123,892          | 197,704                 | 44.0               | 200,801                | 44.6               | 449,838                       |
| 1945.....               | 19,025           | 146,530          | 233,991                 | 43.0               | 275,622                | 50.7               | 543,580                       |
| 1946.....               | 23,793           | 198,851          | 344,893                 | 39.7               | 459,966                | 53.0               | 868,661                       |
| 1947.....               | 26,542           | 250,330          | 482,907                 | 38.4               | 654,996                | 52.1               | 1,256,536                     |
| 1948.....               | 21,909           | 284,019          | 605,496                 | 36.4               | 835,917                | 50.2               | 1,665,561                     |
| 1949 <sup>1</sup> ..... | 22,878           | 303,314          | 680,125                 | 35.4               | 1,010,169              | 52.6               | 1,920,631                     |

<sup>1</sup> Includes Newfoundland.

**Building Permits.**—Values of building permits issued in 507 municipalities by types of buildings are shown in the following table for 1948 and 1949. Prior to 1948 data were reported by 204 municipalities only.

**Building Permits Issued in 507 Municipalities, by Types, 1948 and 1949**

| Type of Building   | 1948           | 1949 <sup>1</sup> | P.C. Change<br>1948-49 |
|--------------------|----------------|-------------------|------------------------|
|                    | \$'000         | \$'000            |                        |
| Residential.....   | 379,913        | 445,322           | +17.2                  |
| Institutional..... | 76,660         | 103,192           | +34.6                  |
| Commercial.....    | 135,017        | 149,832           | +11.0                  |
| Industrial.....    | 51,210         | 40,261            | -21.4                  |
| Other.....         | 4,608          | 6,623             | +43.7                  |
| <b>Totals.....</b> | <b>647,408</b> | <b>745,230</b>    | <b>+15.1</b>           |

<sup>1</sup> Newfoundland not included.

**Railways.**—The expenditures of railways, steam and electric, on road, maintenance of way and structures and equipment are not included in the figures for the construction industries given above and are therefore summarized here. For steam railways expenditures for these purposes in 1948 amounted to \$309,436,552 compared with \$249,445,715 in 1947. For electric railways, expenditure in 1948 was \$12,619,795 as against \$10,393,817 in 1947.

The first all-aluminum highway bridge on the North American continent was opened in July, 1950. The bridge, 504 ft. in length, spans the Saguenay River at Arvida, Que. Light, strong, corrosion-resistant aluminum is being increasingly used as a structural material.







# Labour

MODERN labour is protected by law and by the organizations that labour has itself set up or called into existence. The Parliament of Canada as well as the Provincial Legislatures have enacted laws for the protection of workers in their places of employment. Co-operation between the Federal Government and the provinces before and during the War has resulted in fairly uniform principles being applied throughout Canada for the settlement of industrial disputes.

The Government of Canada provides unemployment insurance through a nation-wide system of employment offices which are concerned with both the payment of claims and the placing of workers in jobs. The Government regulates working conditions of its own employees and provides compensation for them in case of accident during employment. Observance is required of specified wage-and-hour conditions by contractors for federal public works and government equipment and supplies. Federal laws govern employment on railways and in the mercantile marine, permit peaceful picketing, and prohibit employment on Sunday except under certain conditions.

In most provinces there are laws for the inspection of mines, factories, shops and other work places and for the regulation of wages, hours of work, employment of women and children, apprenticeship and workmen's compensation. Laws have also been enacted to protect freedom of association, to require employers to bargain with the representatives of employees or with trade unions and to prohibit any strike or lockout until after an inquiry.

## *Collective Bargaining and Conciliation Legislation*

The Industrial Relations and Disputes Investigation Act came into effect on Sept. 1, 1948. The new legislation replaced both the Industrial Disputes Investigation Act which had been in force from 1907 to March, 1944, and the Wartime Labour Relations Regulations, Order in Council P.C. 1003, which had succeeded the Industrial Disputes Investigation Act in 1944. By proclamation the Industrial Relations and Disputes Investigation Act became effective in the Province of Newfoundland on Sept. 19, 1949.

The new Act applies only to industries within federal jurisdiction, i.e., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries, both interprovincial and international aerodromes and air transportation, radio broadcasting stations, and works declared to be for the general advantage of Canada. However, the Act provides that provincial authorities may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements for the administration of such legislation by the federal authorities.

The Minister of Labour and the Canada Labour Relations Board jointly administer the provisions of the Act. The Minister administers those provisions providing for the appointment of Conciliation Officers, Conciliation Boards, Industrial Inquiry Commissions, for consent to prosecute, and for

the making of complaints that the Act has been violated or that a party has failed to bargain in good faith. The Canada Labour Relations Board, which is composed of four representatives each of organized labour and management and a chairman and vice-chairman, administers those portions of the Act that concern the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints that a party has failed to bargain collectively.

The legislation also provides for the right of free association of employees and employers, for the safeguarding of that right by prohibiting unfair labour practices, for compulsory collective bargaining between trade unions and employees upon notice following certification or upon notice to negotiate the renewal of an agreement. Where the parties are unable to reach agreement by direct negotiations, conciliation services by officers and boards may be provided. Strikes and lockouts and the taking of strike votes are prohibited until the legislative procedures of negotiation and conciliation laid down in the Act have either been satisfied or the Minister has refused to appoint a Conciliation Board. Where a Board has been appointed, a strike or lockout may take place seven days after the report of the Board has been given to the Minister of Labour. Where the Minister neglects to appoint a Board, a strike or lockout may take place after 15 days or earlier if the Minister gives notice of refusal to appoint a Board. Enforcement of the Act is by way of court prosecution which can be instituted only by consent of the Minister.

### *Strikes and Lockouts*

A slight increase in the number of strikes and lockouts together with substantial increases in the number of workers involved and the resulting time-loss marked the first eight months of 1950 as compared with the same period in 1949. A strike in August, 1950, of 125,000 non-operating railway workers across Canada, with a time-loss of a 1,000,000 days, was responsible for the sharp increase in the number of workers involved and in the time-loss.

During the first eight months of 1950 preliminary figures show 99 strikes and lockouts, with 149,122 workers involved and a time-loss of 1,263,322 man-working days; in the first eight months of 1949 there were 92 strikes and lockouts, involving 32,005 workers, with a loss of 766,013 days; and in the first eight months of 1948 there were 108 strikes and lockouts, with 29,718 workers involved and a loss of 646,671 days.

Based on the number of non-agricultural wage and salary workers in Canada, the time-loss for the first eight months of 1950 was 0.19 p.c. of the estimated working time, and 0.11 p.c. for the same period in 1949.

### *Labour Organization*

The majority of local trade unions in Canada are branches of international organizations, either craft or industrial, with headquarters in the United States. Broadly speaking, the unions are of four types: (1) international unions with active branches existing in Canada, but headquarters in the United States; (2) national unions that are purely Canadian in scope; (3) local unions, directly chartered by central labour federations and congresses; and (4) wholly independent organizations.



At the end of 1949 there were 1,005,639 union members reported to the Department of Labour, an increase of 28,045 over the 1948 figure. The number of local branches increased from 5,114 in 1948 to 5,268 in 1949. Reports showed 459,068 members of unions affiliated with the Trades and Labour Congress, 301,729 with the Canadian Congress of Labour and 80,089 with the Canadian and Catholic Confederation of Labour at the end of 1949.

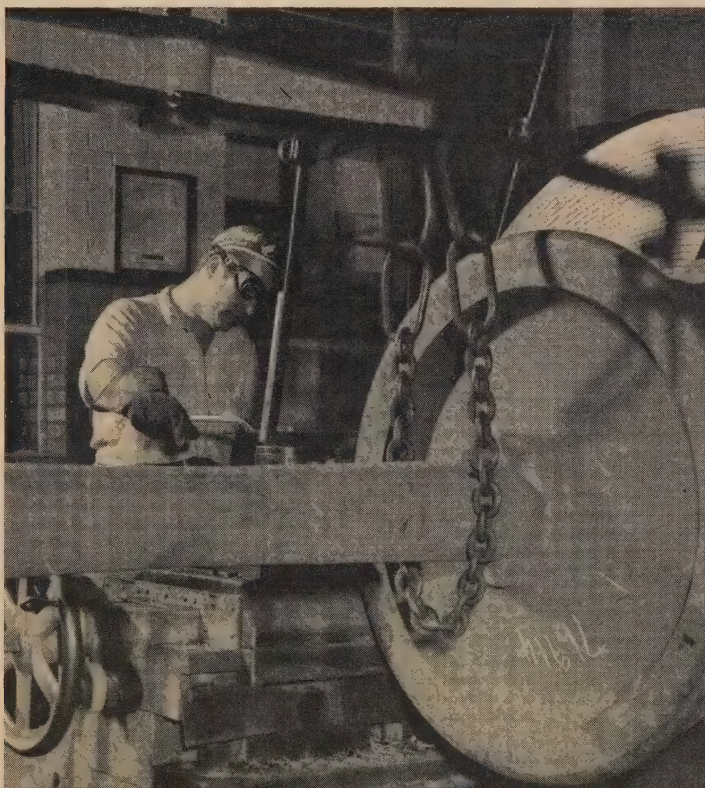
## *The Labour Force*

Since November, 1945, the Dominion Bureau of Statistics has conducted sample surveys to obtain periodic estimates of the employment characteristics of the Canadian population. These are made at quarterly intervals and cover the civilian non-institutional population 14 years of age or over. The sample is composed of approximately 30,000 households in about 100 different areas, selected by scientific sampling methods.

The surveys provide information regarding the current activity or status of individuals during the survey week. Classification is based on the maximum degree of participation in the labour force. In order of descending attachment to the labour force, therefore, an individual is classified as: with a job and at work; without a job and seeking work; with a job but not at work; or without a job and not seeking employment, i.e., not in the labour force.

Estimates of the labour force and its main components are compiled by region, sex, age, occupational status, industry and occupation. Additional

*Operation of this lathe, on which wheels of 52 in. diameter can be turned, is fully automatic, highly accurate and safe in every respect. It is fitted with shatter-proof shields and machinists wear goggles and gloves at all times.*



information with regard to hours worked and industrial attachment is compiled for persons in the paid-worker category.

The following table presents summary data for the 20 labour force surveys from November, 1945, to August, 1950.

### *Labour Force Characteristics of the Canadian Civilian Non-Institutional Population*

(Estimated in thousands of persons 14 years of age or over)

| Date                          | With Jobs and at Work |            |           | With Jobs but not at Work <sup>1</sup> | Total with Jobs | Without Jobs and Seeking Work | Total Labour Force | Total Civilian Non-Institutional Population |
|-------------------------------|-----------------------|------------|-----------|--|-----------------|-------------------------------|--------------------|---|
|                               | 1-14 hrs.             | 15-34 hrs. | 35 hrs. + |  |                 |                               |                    |   |
| Nov. 17, 1945..               | 98                    | 286        | 3,851     | 91                                     | 4,326           | 172                           | 4,498              | 8,333                                       |
| Feb. 23, 1946..               | 85                    | 298        | 3,824     | 105                                    | 4,312           | 213                           | 4,525              | 8,538                                       |
| June 1, 1946..                | 156                   | 315        | 4,110     | 121                                    | 4,702           | 126                           | 4,828              | 8,718                                       |
| Aug. 31, 1946..               | 104                   | 253        | 4,299     | 204                                    | 4,860           | 117                           | 4,977              | 8,792                                       |
| Nov. 9, 1946..                | 111                   | 301        | 4,217     | 104                                    | 4,733           | 115                           | 4,848              | 8,866                                       |
| Mar. 1, 1947..                | 97                    | 324        | 4,005     | 139                                    | 4,565           | 141                           | 4,706              | 8,936                                       |
| May 31, 1947..                | 126                   | 312        | 4,279     | 104                                    | 4,821           | 91                            | 4,912              | 8,930                                       |
| Aug. 16, 1947..               | 113                   | 315        | 4,312     | 268                                    | 5,008           | 73                            | 5,081              | 8,971                                       |
| Nov. 8, 1947..                | 120                   | 322        | 4,293     | 112                                    | 4,847           | 87                            | 4,934              | 9,003                                       |
| Feb. 21, 1948..               | 103                   | 372        | 4,033     | 161                                    | 4,669           | 156                           | 4,825              | 9,058                                       |
| June 5, 1948..                | 127                   | 334        | 4,388     | 99                                     | 4,948           | 82                            | 5,030              | 9,118                                       |
| Sept. 4, 1948..               | 102                   | 314        | 4,449     | 177                                    | 5,042           | 67                            | 5,109              | 9,160                                       |
| Nov. 20, 1948..               | 104                   | 326        | 4,336     | 92                                     | 4,858           | 106                           | 4,964              | 9,193                                       |
| Mar. 5, 1949..                | 91                    | 389        | 4,095     | 125                                    | 4,700           | 199                           | 4,899              | 9,270                                       |
| June 4, 1949..                | 108                   | 337        | 4,483     | 90                                     | 5,018           | 103                           | 5,121              | 9,301                                       |
| Aug. 20, 1949..               | 92                    | 312        | 4,522     | 229                                    | 5,155           | 98                            | 5,253              | 9,343                                       |
| Oct. 29, 1949 <sup>2</sup> .. | 101                   | 367        | 4,486     | 99                                     | 5,053           | 147                           | 5,200              | 9,610                                       |
| Mar. 4, 1950..                | 120                   | 483        | 4,041     | 152                                    | 4,796           | 312                           | 5,108              | 9,679                                       |
| June 3, 1950 <sup>3</sup> ..  | 88                    | 314        | 4,308     | 83                                     | 4,793           | 140                           | 4,933              | 9,135                                       |
| Aug. 19, 1950..               | 92                    | 299        | 4,563     | 267                                    | 5,221           | 103                           | 5,334              | 9,717                                       |

<sup>1</sup> Includes persons who did not work at their jobs during the survey week and who were not seeking work. <sup>2</sup> Newfoundland included in estimates from October, 1949. <sup>3</sup> Excluding Manitoba because of flood conditions in the Red River Valley.

### *Employment in 1950*

Industrial activity was maintained at a high level in the early months of 1950, the average index of employment for the first nine months, at 127.6, being 0.3 p.c. above the corresponding 1949 figure, and also exceeding the 1948 and 1947 averages for the same period. There was the usual seasonal decline in the opening months of 1950, when employment was lower than in the first quarter of 1949. From May 1, however, the index showed steady though moderate increases as compared with the Jan. 1 index, and also, in most cases, as compared with the same months of 1949.

Several factors contributed to the high levels of employment in 1950. There was a continuance of heavy investment expenditures, as well as strong demand for consumer goods. Labour-management relations were generally good, in spite of the dispute in the non-operating branches of the railways, which seriously affected the situation in the latter part of August. Some lines of business, however, were adversely affected by devaluation of the Canadian dollar and European currencies, but in other instances employment was accelerated by increased exports to the United States.



Miners about to leave the cage to begin an eight-hour shift at the 1,800-ft. level of a gold mine. They are visited at least twice during that time by a supervisor who records their progress.



The general index of aggregate weekly payrolls continued to show successive increases, interrupted only by losses occurring in the holiday weeks of Jan. 1 and June 1. The figure at Sept. 1, 1950, was 10 points higher than that at the same date in 1949. The general increase of the index for the first nine months of 1950 was 9 points, as compared with 17.7 points in the same period in 1949 over 1948, and 26.6 points in 1948 over 1947. Many firms showed further upward adjustments in their wage rates, while the payment of higher cost-of-living bonuses was commonly reported as prices continued to rise. The weekly wages and salaries averaged \$44.47 in the first nine months of 1950, exceeding by 3.9 p.c. the average in the same period in 1949, previously the maximum on record.

### Index Numbers of Employment and Payrolls and Average Weekly Wages and Salaries in Leading Non-Agricultural Industries, by Months, 1948-50

(June 1, 1941 = 100)

| Month        | Index Numbers of— |       |       |          |       |       | Average Weekly Wages and Salaries |       |       |
|--------------|-------------------|-------|-------|----------|-------|-------|-----------------------------------|-------|-------|
|              | Employment        |       |       | Payrolls |       |       |                                   |       |       |
|              | 1948              | 1949  | 1950  | 1948     | 1949  | 1950  | 1948                              | 1949  | 1950  |
|              |                   |       |       |          |       |       | \$                                | \$    | \$    |
| Jan. 1.....  | 126.9             | 128.4 | 127.0 | 178.3    | 204.5 | 208.9 | 36.28                             | 41.10 | 42.38 |
| Feb. 1.....  | 124.0             | 124.8 | 122.6 | 185.7    | 207.6 | 209.2 | 38.63                             | 42.92 | 43.99 |
| Mar. 1.....  | 123.7             | 123.7 | 122.2 | 189.3    | 207.5 | 212.1 | 39.50                             | 43.27 | 44.74 |
| Apr. 1.....  | 122.2             | 122.9 | 123.1 | 184.8    | 206.5 | 214.2 | 39.04                             | 43.35 | 44.88 |
| May 1.....   | 122.1             | 123.8 | 123.6 | 188.0    | 207.3 | 215.7 | 39.70                             | 43.19 | 44.99 |
| June 1.....  | 125.9             | 127.4 | 128.6 | 195.4    | 209.0 | 222.6 | 40.02                             | 42.32 | 44.59 |
| July 1.....  | 129.7             | 130.6 | 132.5 | 203.5    | 217.6 | 232.1 | 40.48                             | 42.96 | 45.13 |
| Aug. 1.....  | 131.6             | 131.3 | 133.9 | 207.2    | 218.9 | 235.2 | 40.66                             | 43.01 | 45.26 |
| Sept. 1..... | 132.2             | 132.4 | 135.1 | 209.3    | 222.0 | 232.0 | 40.86                             | 43.27 | 44.24 |
| Oct. 1.....  | 133.1             | 132.4 | ..    | 215.7    | 223.8 | ..    | 41.80                             | 43.55 | ..    |
| Nov. 1.....  | 133.3             | 132.3 | ..    | 218.0    | 224.8 | ..    | 42.15                             | 43.80 | ..    |
| Dec. 1.....  | 133.9             | 132.2 | ..    | 219.0    | 224.7 | ..    | 42.23                             | 43.81 | ..    |



Industrial activity in the first months of 1950 was generally greater than in the same period of 1949, in all provinces except Nova Scotia. A contraction in employment in iron and steel mills and construction was responsible for most of the change in that Province. The increases in the other provinces at Sept. 1, 1950, as compared with the same date one year earlier, ranged from 0.9 points in Manitoba to 31.6 points in Prince Edward Island. Improvement in the logging industry accounted for much of the advance of 5.5 points in the index for New Brunswick, while expansion in oil production and construction was responsible for the rise of 6.8 points in the employment index for Alberta in the same period.

The provincial index numbers of aggregate payrolls in the major industrial groups were higher in 1950 than in 1949 in all provinces except Nova Scotia, reaching new all-time peaks in most areas. The average weekly wages and salaries were also generally higher in practically all provinces than in any earlier year.

**Average Hours, Average Hourly Earnings and Average Weekly Wages in Manufacturing, by Months, 1948-50**

| Month        | Average Hours Worked |      |      | Average Hourly Earnings |       |       | Average Weekly Wages |       |       |
|--------------|----------------------|------|------|-------------------------|-------|-------|----------------------|-------|-------|
|              | 1948                 | 1949 | 1950 | 1948                    | 1949  | 1950  | 1948                 | 1949  | 1950  |
|              | No.                  | No.  | No.  | cts.                    | cts.  | cts.  | \$                   | \$    | \$    |
| Jan. 1.....  | 38.3                 | 40.6 | 39.9 | 86.6                    | 97.2  | 101.1 | 33.17                | 39.46 | 40.34 |
| Feb. 1.....  | 42.8                 | 42.9 | 42.3 | 86.6                    | 97.2  | 100.9 | 37.06                | 41.70 | 42.68 |
| Mar. 1.....  | 43.2                 | 43.0 | 42.5 | 88.0                    | 97.6  | 101.4 | 38.02                | 41.97 | 43.10 |
| Apr. 1.....  | 41.6                 | 42.9 | 42.8 | 89.0                    | 98.2  | 101.7 | 37.02                | 42.13 | 43.53 |
| May 1.....   | 43.1                 | 42.5 | 42.6 | 89.4                    | 98.6  | 102.5 | 38.53                | 41.91 | 43.67 |
| June 1.....  | 41.7                 | 40.8 | 42.0 | 91.4                    | 99.1  | 103.5 | 38.11                | 40.43 | 43.47 |
| July 1.....  | 42.0                 | 41.8 | 42.5 | 92.3                    | 99.1  | 103.9 | 38.77                | 41.42 | 44.16 |
| Aug. 1.....  | 42.1                 | 41.9 | 42.5 | 92.7                    | 98.8  | 104.2 | 39.03                | 41.40 | 44.29 |
| Sept. 1..... | 41.7                 | 42.4 | 41.9 | 93.4                    | 98.4  | 104.4 | 38.95                | 41.72 | 43.74 |
| Oct. 1.....  | 43.0                 | 42.7 | ..   | 94.6                    | 99.3  | ..    | 40.68                | 42.40 | ..    |
| Nov. 1.....  | 43.1                 | 42.8 | ..   | 95.5                    | 99.5  | ..    | 41.16                | 42.59 | ..    |
| Dec. 1.....  | 43.2                 | 42.9 | ..   | 96.0                    | 100.0 | ..    | 41.47                | 42.90 | ..    |

Among the larger cities, improvement in industrial employment was indicated at Montreal, Toronto, Ottawa, Hamilton and Windsor. Declines in shipbuilding and construction contributed to lower figures in Quebec and Vancouver, while in Winnipeg manufacturing was quieter. On the other hand, construction firms in the latter centre reported a high level of activity, partly associated with repairs to property damaged by floods. The average weekly wages and salaries reported in the cities mentioned generally exceeded those recorded in the same period of 1949.

Industrially, there was moderate expansion in employment in 1950 in most of the leading non-agricultural groups. Logging and transportation were exceptions, the index numbers in those divisions in the first nine months being considerably below the same period in 1949. Unfavourable weather in some areas in the early months of the year hampered bush operations, and currency problems adversely affected certain overseas markets. In the latter months of 1950, however, some improvement over the same part of 1949 was indicated in logging. In transportation, there were small declines in the 12-month comparisons during most of the year; these took place to a considerable extent in the shipping industry.

In the first nine months of 1950 there was an increase of 0·8 p.c. in the employment reported for women by leading establishments in the major industrial groups as compared with 1949, while the number of men employed also showed a small advance. Changes in the industrial distribution of employment was largely responsible for the variation in the movements. The proportion of women per 1,000 workers of both sexes fell from 228 at Sept. 1, 1949 to 223 at the same date in 1950.

## *Wage Rates and Hours of Labour*

Index numbers of wage rates, compiled by the Department of Labour, show the general movement of wage rates for the main industrial groups as well as for individual industries, but cannot be used to compare rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piece-work earnings and therefore do not include overtime or other premium payments. From 1930 to 1933 there was a considerable decrease in wage rates but increases have been general each year since that time. During 1939-49 the rise amounted to about 105 p.c.

### *Index Numbers of Wage Rates for Certain Main Groups of Industries, 1901-49*

(Rates in 1939=100)

| Year                  | Logging | Coal Mining | Metal Mining | Manu-<br>fac-<br>turing | Con-<br>struc-<br>tion | Water<br>Trans-<br>port | Steam<br>Rail-<br>ways | Electric<br>Rail-<br>ways | Tele-<br>phones | General<br>Aver-<br>age <sup>1</sup> |
|-----------------------|---------|-------------|--------------|-------------------------|------------------------|-------------------------|------------------------|---------------------------|-----------------|--------------------------------------|
| 1901...               | 51·4    | 47·4        | 61·2         | ..                      | 35·3                   | 43·9                    | 33·7                   | 32·8                      | ..              | 38·1                                 |
| 1905...               | 57·0    | 49·5        | 58·7         | ..                      | 42·8                   | 44·7                    | 36·5                   | 37·7                      | ..              | 43·1                                 |
| 1910...               | 64·0    | 54·0        | 62·5         | ..                      | 50·9                   | 48·4                    | 44·1                   | 44·0                      | ..              | 49·9                                 |
| 1915...               | 61·1    | 58·7        | 66·2         | 50·1                    | 59·4                   | 54·0                    | 49·8                   | 50·2                      | ..              | 53·2                                 |
| 1920...               | 142·5   | 113·3       | 102·9        | 102·4                   | 106·0                  | 105·2                   | 108·2                  | 99·7                      | 92·2            | 107·0                                |
| 1925...               | 95·2    | 96·1        | 93·3         | 92·3                    | 99·8                   | 90·4                    | 91·2                   | 96·4                      | 89·1            | 93·8                                 |
| 1930...               | 97·5    | 97·1        | 93·9         | 95·5                    | 119·1                  | 97·2                    | 100·0                  | 102·3                     | 94·7            | 99·9                                 |
| 1935...               | 73·1    | 95·0        | 92·6         | 87·0                    | 93·6                   | 81·1                    | 90·1                   | 94·3                      | 93·0            | 88·4                                 |
| 1940...               | 104·9   | 102·1       | 102·8        | 104·3                   | 104·3                  | 105·2                   | 100·0                  | 103·9                     | 101·3           | 103·9                                |
| 1941...               | 114·0   | 109·4       | 112·2        | 115·2                   | 111·6                  | 113·3                   | 109·4                  | 109·1                     | 106·4           | 113·1                                |
| 1942...               | 125·9   | 113·1       | 118·7        | 125·5                   | 118·6                  | 125·8                   | 114·8                  | 115·8                     | 112·0           | 122·5                                |
| 1943...               | 143·1   | 124·8       | 123·1        | 136·8                   | 127·7                  | 138·8                   | 125·5                  | 121·2                     | 121·9           | 133·7                                |
| 1944...               | 146·1   | 146·0       | 125·2        | 141·4                   | 129·6                  | 142·2                   | 125·5                  | 125·7                     | 122·4           | 137·9                                |
| 1945...               | 153·3   | 146·2       | 128·2        | 146·5                   | 131·1                  | 144·6                   | 125·5                  | 126·6                     | 125·6           | 141·8                                |
| 1946...               | 167·4   | 146·7       | 135·7        | 161·5                   | 143·9                  | 162·3                   | 142·3                  | 139·5                     | 125·2           | 155·2                                |
| 1947...               | 195·1   | 166·7       | 157·7        | 183·3                   | 155·0                  | 183·8                   | 142·3                  | 162·3                     | 132·2           | 173·7                                |
| 1948...               | 218·8   | 192·9       | 173·1        | 205·9                   | 176·3                  | 213·5                   | 170·2                  | 175·0                     | 140·4           | 195·8                                |
| 1949 <sup>p</sup> ... | 216·0   | 192·4       | 180·5        | 219·1                   | 184·2                  | ..                      | 170·2                  | 177·7                     | 151·3           | 205·1                                |

<sup>1</sup> Includes laundries.

In 1949 the average normal weekly hours of work in manufacturing industries, weighted by the number of male workers, was 44·8. The average weekly hours in the major manufacturing groups were: food and beverages, 45·9; tobacco and tobacco products, 45·0; rubber products, 43·4; leather products, 45·3; textile products (except clothing), 46·6; clothing (textile and fur), 43·3; wood products, 45·9; paper products, 47·1; printing, publishing and allied industries, 40·8; iron and steel products, 44·0; transportation equipment, 44·3; non-ferrous metal products, 44·8; electrical apparatus and supplies, 42·3; non-metallic mineral products, 46·8; products of petroleum and coal, 41·5; chemical products, 44·0; and miscellaneous manufacturing industries, 44·7.

Normal weekly hours in the logging industry in the British Columbia coastal area were predominately 40. In Eastern Canada the majority worked 60 hours, although 48 and 54 hours were common. In the coal-mining industry the hours varied from 40 to 48 per week, with 40 being predominant. In metal-mining the 48-hour week was general in all provinces except British Columbia where the 44-hour week prevailed. The average weekly hours of work for male employees in wholesale trade was 44.1 in 1949, and the average in retail trade was 44.5 for male employees and 42.1 for female employees.

Five provinces regulate hours of work by statute. A 48-hour week for both men and women workers became effective in Ontario in 1944 and in Alberta in 1945. British Columbia adopted a 44-hour week in 1946 and the next year Saskatchewan enacted a statute stipulating that no person could be employed for more than 44 hours in a week unless an overtime rate of time and one-half were paid. In 1949 Manitoba established a maximum work week of 48 hours for men and 44 for women with payment for overtime beyond these limits at the rate of time and one-half. These statutes exempt a few classes and permit exceptions to be made by the administrative authorities.

### *Unemployment Insurance*

The Unemployment Insurance Act, 1940, providing a co-ordinated program of unemployment insurance and employment offices, is administered by an Unemployment Insurance Commission, consisting of a Chief Commissioner and two Commissioners (one appointed after consultation with employees and one after consultation with employers).

All persons employed on a contract of service are insured unless specifically excepted. Exceptions include such employments as agriculture, fishing, domestic service, school-teaching, and those employed on other than an hourly, daily, piece or mileage basis with annual earnings exceeding \$4,800. Persons employed on an hourly, daily, piece or mileage basis are insured regardless of their earnings level.

Employers and their insured workers make contributions according to a graded scale, but in the country as a whole they contribute approximately equal amounts. The Federal Government adds one-fifth of the total employer-employee contributions and pays administration costs. War veterans who enter insured employment and contribute for at least 15 weeks in any year are deemed to have been in such employment for the period of their war service and contributions are paid on their behalf by the Government.

Rates of contribution and benefit under the Unemployment Insurance Act are related to the insured person's earnings. Weekly rates of contribution and selected weekly benefit rates are set forth in the table on p. 230. Contributions are made (usually) by means of the employer attaching a stamp in the employee's book. The stamp combines the employer's and employee's shares (the employer then deducting the employee's share from his earnings) and the weekly stamp is perforated so that it can be divided into six equal parts for the purpose of recording contributions for periods of less than a week. The daily rate of contribution is one-sixth of the weekly rate.

The daily rate of benefit for an insured person is calculated on the basis of his daily average contribution during the most recent 180 days contributions in the two years immediately preceding the claim. The daily rate of



benefit for a claimant having no dependant is 34 times and, for a claimant with a dependant, 10 cents less than 45 times this average. Daily benefit rates are adjusted to the nearest five cents. The weekly rate is six times the daily rate. The weekly rates of benefit presented in the table are calculated on the assumption that the beneficiary has contributed at the corresponding rate shown in the table during the preceding 180 contribution days.

Since April, 1949, the provisions of the Unemployment Insurance Act have been extended to Newfoundland. However, until such time as workers in that Province will have accumulated sufficient contributions to entitle them to unemployment insurance benefits, they are covered by a special scheme of unemployment assistance which provides for payments to unemployed persons on the same scale as unemployment insurance benefits.

During the first six months of 1950, 613,799 initial and renewal claims were filed in Local Offices, 517,632 were considered entitled to benefit and benefit payments amounted to \$68,452,979. During the calendar year 1949 there were 933,852 initial and renewal claims filed, 748,664 claimants were considered entitled to benefit, and benefit payments totalled \$69,351,039. In 1948, 649,090 initial and renewal claims were filed, 499,321 were considered entitled to benefit, and the amount of benefit paid was \$40,469,425.

*Persons Issued an Unemployment Insurance Book, by Sex and Province, as at Apr. 1, 1949*

| Province         | Male    | Female  | Province           | Male             | Female         |
|------------------|---------|---------|--------------------|------------------|----------------|
|                  | No.     | No.     |                    | No.              | No.            |
| Newfoundland...  | 26,370  | 4,310   | Manitoba.....      | 117,270          | 40,970         |
| P.E. Island..... | 5,550   | 2,140   | Saskatchewan...    | 47,210           | 18,870         |
| Nova Scotia..... | 70,690  | 16,610  | Alberta.....       | 93,230           | 29,140         |
| New Brunswick..  | 60,110  | 16,620  | British Columbia   | 197,050          | 60,960         |
| Quebec.....      | 531,270 | 214,330 |                    |                  |                |
| Ontario.....     | 755,430 | 302,040 | <b>Totals.....</b> | <b>1,904,180</b> | <b>705,990</b> |

*The mine manager with the chief engineer and underground superintendent form the mine's production team.*



Effective July 1, 1950, the rates of contribution were increased by one cent a day for both employers and employees, to provide for the payment of supplementary benefit. Certain classes of persons who, having been employed in insurable employment or in an industry only recently come under the coverage of the Act, have insufficient contributions to qualify for regular insurance benefit, can receive supplementary benefit, at rates equal to approximately 80 p.c. of regular benefit. During 1950, supplementary benefit was payable from Feb. 28 to Apr. 15, and in subsequent years during the first three months of the year.

### ***Weekly Rates of Contribution and Benefit under the Unemployment Insurance Act***

(Effective July 1, 1950)

| Range of Earnings        | Weekly Contributions |                         | Rates of Benefit              |        |                            |        |
|--------------------------|----------------------|-------------------------|-------------------------------|--------|----------------------------|--------|
|                          | Em-<br>ployer        | Em-<br>ployed<br>Person | Person Without<br>a Dependant |        | Person With a<br>Dependant |        |
|                          |                      |                         | Daily                         | Weekly | Daily                      | Weekly |
| While Earning in a Week— | cts.                 | cts.                    | \$                            | \$     | \$                         | \$     |
| Less than \$ 9.00.....   | 18                   | 18                      | 0.70                          | 4.20   | 0.80                       | 4.80   |
| \$ 9.00 to \$14.99.....  | 24                   | 24                      | 1.00                          | 6.00   | 1.25                       | 7.50   |
| \$15.00 to \$20.99.....  | 30                   | 30                      | 1.35                          | 8.10   | 1.70                       | 10.20  |
| \$21.00 to \$26.99.....  | 36                   | 36                      | 1.70                          | 10.20  | 2.15                       | 12.90  |
| \$27.00 to \$33.99.....  | 42                   | 42                      | 2.05                          | 12.30  | 2.60                       | 15.60  |
| \$34.00 to \$47.99.....  | 48                   | 48                      | 2.40                          | 14.40  | 3.05                       | 18.30  |
| \$48.00 or more.....     | 54                   | 54                      | 2.70                          | 16.20  | 3.50                       | 21.00  |

### ***National Employment Service***

The Unemployment Insurance Commission operates a nation-wide free employment service under authority of the Unemployment Insurance Act, 1940. This service is available to all and is widely used by non-insured persons as well as insured workers. With regard to the latter, through the employment service the Commission certifies that a claimant for unemployment insurance benefit is unemployed and that suitable work is, or is not, available. This test is a basic condition for the receipt of unemployment insurance.

During the post-war years the National Employment Service in co-operation with the Department of Labour has played an important role in placing displaced persons from Europe in employment. From the inception of the Group Immigration Plan in August, 1947, until Aug. 31, 1950, approximately 42,000 workers with 13,000 dependants were directed to employment.

### ***Vocational Training***

The Training Branch of the Department of Labour is responsible for the administration of the Vocational Training Co-ordination Act, 1942. The Act provides financial assistance to the provinces for various types of training under specified conditions which are set out in agreements between the Federal Government and the Provincial Governments concerned. The

*Students learn the fundamentals of welding. The Manitoba Government, in conjunction with employers, operates a technical institute to provide training for both skilled workers and apprentices in all arts and crafts.*



Director of Training at headquarters is assisted by a Regional Director in each province. An Advisory Council representing workers, veterans, employers, etc., advises the Minister on policy and procedure in connection with training projects.

Youth Training Agreements, for young people between 16 and 30 years, are in effect with all provinces, and the federal appropriation of \$425,000 is distributed among them, expenditure being shared equally by the Federal and Provincial Governments. Financial assistance is provided for university students and nurses; in addition, thousands of young people, particularly in rural areas, have benefited by training in agricultural pursuits.

There are Apprenticeship Acts in all provinces except Prince Edward Island and Newfoundland. In seven provinces apprenticeship training in skilled trades is aided by the Federal Government under agreements that have been in effect for nearly four years. Over 10,900 apprentices were registered on Mar. 31, 1949.

Youth training, training of veterans, and training of supervisors and of unemployed civilians were consolidated under the Vocational Training Agreement, effective Apr. 1, 1948. The Federal and Provincial Governments share equally in all approved expenditures except for the training of veterans, which is all borne by the Federal Government. This Agreement has been signed by all provinces. The program of vocational and pre-matriculation training of former members of the Armed Forces is practically completed.

Vocational and technical training on the secondary-school level is being assisted in each province for a ten-year period. A \$10,000 annual grant is made to each province and, in addition, if the province appropriates an amount equal to the federal contribution, a sum of \$1,910,000 is available to the provinces each year. This amount is divided in proportion to the population in each province between the ages of 15 and 19 years. On the same basis, a special federal contribution of \$10,000,000 has been allotted for capital expenditures incurred prior to Mar. 31, 1952, for buildings and equipment.





# Transportation Communications

**E**XTENSIVE and efficient transportation and communication facilities such as Canada possesses are a vital necessity. They knit together, politically and economically, a relatively small and wide-flung population engaged in industrial and agricultural activities of domestic and world importance and literally form the backbone of the nation.

## *Steam Railways*

It would be difficult to over-estimate the importance of the railways in the building of Canada. One of the first great undertakings to engage the attention of the young Dominion after Confederation in 1867 was the construction of a transcontinental railway to link the east and west. Surmounting tremendous difficulties, the Canadian Pacific Railway spanned the continent in 1885 and the vast hinterland of the Canadian west was opened for settlement. The wheat boom during the period 1900-13 brought population, prosperity and rapid economic expansion and precipitated another era of railway development. Two other transcontinental systems, the Canadian Northern and the Grand Trunk Pacific (with the government-built National Transcontinental) were built, and total Canadian railway mileage increased from 18,140 in 1901 to 30,795 by 1914.

Construction continued in the war years and during 1914-18 nearly 7,500 miles of railway were opened to traffic, bringing the total up to 38,252 miles. Much of the financing of the Canadian Northern and Grand Trunk Pacific lines was aided by the Federal and Provincial Governments guaranteeing the interest and principal of their debentures. Immigration was stopped by the War, traffic in the Western Provinces did not develop as anticipated, and these two railways and the Grand Trunk Railway, which was constructing the Grand Trunk Pacific, soon were unable to meet their interest payments. A commission was appointed on the advice of which the Federal Government took over these railways and amalgamated them with the Government-owned railways, some of which had been constructed as a covenant of Confederation. The resulting Canadian National Railways had a total mileage in 1923 of 21,805 miles, including mileage of the Grand Trunk lines in the United States; this mileage had grown to 23,828 by the end of 1949, including 547 main-line miles in Newfoundland added to the Canadian National System on Apr. 1, 1949.

The Provincial Government of British Columbia also took over in 1918 a bankrupt railway (348 miles) and the Canadian National and Canadian Pacific jointly took over in 1929 the Northern Alberta Railway (923 miles), which had been under private ownership but was unable to continue operations. The Province of Ontario built, primarily for colonization purposes, and still operates a railway (574 miles). Thus the publicly operated railways in Canada are a combination of lines, some of which were constructed for political reasons or colonization purposes and some taken over from private companies faced with bankruptcy.

As a group these railways have not been prosperous: the Canadian National Railways earned a surplus only in 1926 and 1928, and in the five war years, 1941-45, inclusive. During the period 1923-49 the net result was a cash deficit of \$561,840,662, exclusive of capital losses and interest on advances by the Federal Government to meet operating deficits.

The following table shows railway data for 1928, the pre-war peak year; 1933, the lowest of the depression years; 1938, the last full year before the War; and 1942-49, years affected by war and post-war conditions.

### Summary Statistics of Canadian Railways, 1928, 1933, 1938 and 1942-49

| Year      | Freight Carried<br>One Mile | Passengers<br>Carried <sup>1</sup> | Em-<br>ployees | Gross<br>Operating<br>Revenues | Operating<br>Expenses |
|-----------|-----------------------------|------------------------------------|----------------|--------------------------------|-----------------------|
|           | tons                        | No.                                | No.            | \$                             | \$                    |
| 1928..... | 41,610,660,776              | 40,592,792                         | 187,710        | 563,732,260                    | 442,701,270           |
| 1933..... | 21,092,594,200              | 19,172,193                         | 121,923        | 270,278,276                    | 233,133,108           |
| 1938..... | 26,834,696,695              | 20,911,196                         | 127,747        | 336,833,400                    | 295,705,638           |
| 1942..... | 56,153,953,000              | 47,596,602                         | 157,740        | 663,610,570                    | 485,783,584           |
| 1943..... | 63,915,074,000              | 57,175,840                         | 169,663        | 778,914,565                    | 560,597,204           |
| 1944..... | 65,928,078,992              | 60,335,950                         | 175,095        | 796,636,786                    | 634,774,021           |
| 1945..... | 63,349,094,918              | 53,407,845                         | 180,603        | 774,971,360                    | 631,497,562           |
| 1946..... | 55,310,257,842              | 43,405,177                         | 180,383        | 718,510,764                    | 623,529,472           |
| 1947..... | 60,143,034,978              | 40,941,387                         | 184,415        | 785,177,924                    | 690,821,047           |
| 1948..... | 59,080,323,337              | 38,279,981                         | 189,963        | 875,832,290                    | 808,126,455           |
| 1949..... | 56,338,230,997              | 34,883,803                         | 192,366        | 894,397,264                    | 831,456,446           |

<sup>1</sup> Duplications included.

As the railways are public utilities enjoying certain exclusive operating rights, the Board of Transport Commissioners was set up to control freight and passenger rates as well as other matters relating to the construction, operation and safety of railways.

### Urban Transport Services

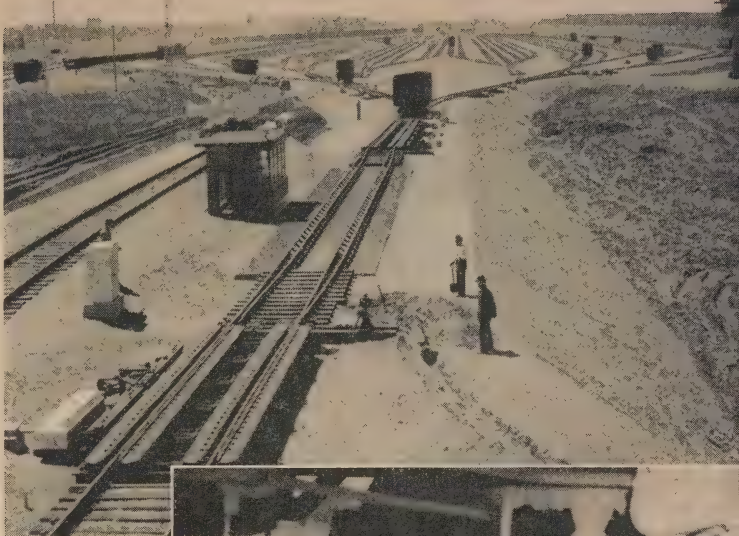
Widespread changes in urban transport systems have been taking place in recent years. Electric street railways, at one time the sole type of conveyance, have been replaced or supplemented in many Canadian cities by



Travel comfort at its best in an air-conditioned day coach.

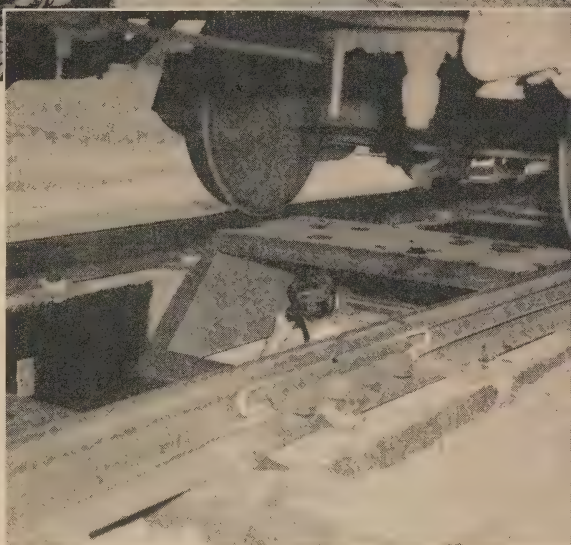


The C.P.R. freight terminal opened at Montreal in July, 1950, provides facilities for better and quicker handling of freight. Approximately 3,000 cars pass through the terminal every 24 hours.



Cars moving down the 'hump' into the classification yard are electrically braked and switched to their destined positions.

Cars being pushed up the hump are inspected from an undertrack floodlit pit.



motor-buses and the trolley-buses, while a large number of inter-urban electric lines have been abandoned. At the end of 1949, electric cars were in operation in only 15 Canadian cities compared with 43 in 1926. In many cases, the same transportation company has remained in operation, using motor-buses instead of electric cars, but in a considerable number of cities in Ontario and Western Canada the transportation services are now owned and operated by the municipalities. Windsor is at present the largest city where buses, exclusively, are operated. Trolley-buses are in use at Montreal, Toronto, Kitchener, Winnipeg, Calgary, Edmonton, Regina, Fort William, Port Arthur, Vancouver, Cornwall and Saskatoon.

Equipment owned by companies or municipalities operating electric railways in 1949 included 2,971 electric passenger cars, 1,817 buses and 726

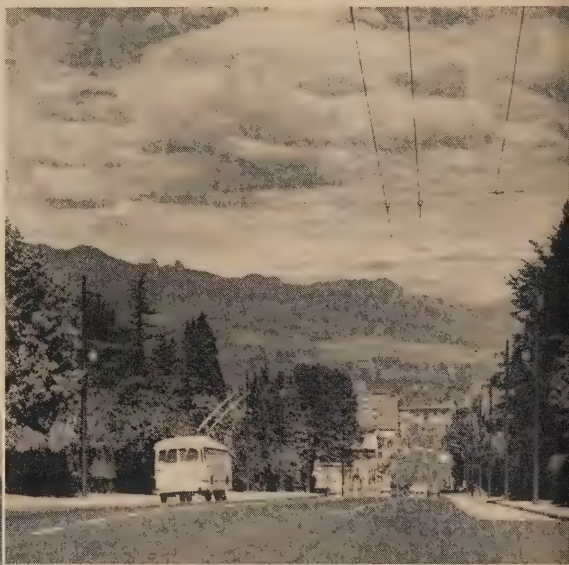
trolley-buses. Passengers carried by these vehicles in that year numbered nearly 1,240,558,812. Electric cars carried 63 p.c. of the traffic, motor-buses 24 p.c. and trolley-buses 13 p.c.

## *Roads and Highways*

The rapid increase in the percentage of motor-car owners to population has created a demand for good highways and for the development of scenic routes for pleasure travel. At the end of 1948 there were 150,493 miles of surfaced road and 405,773 miles of non-surfaced road in Canada. Of the surfaced road, 129,659 miles were gravel, 18,292 miles were bituminous surfaced, 2,359 miles concrete and 183 miles other surfaces.

All roads, except those in the Territories and the National Parks which are the responsibility of the Federal Government, are under the jurisdiction of provincial and municipal authorities. Of the \$266,000,000 spent on new construction and maintenance of roads, bridges, ferries, etc., in 1948,

*Transit centre for the B.C. Electric Railway Company which serves Vancouver, the lower mainland and Victoria. Trolley-buses and motor-buses are being used exclusively on extended and new routes and are quickly replacing street cars on certain established lines.*





*The snow blower keeps Ontario's highways open for traffic during the winter.*



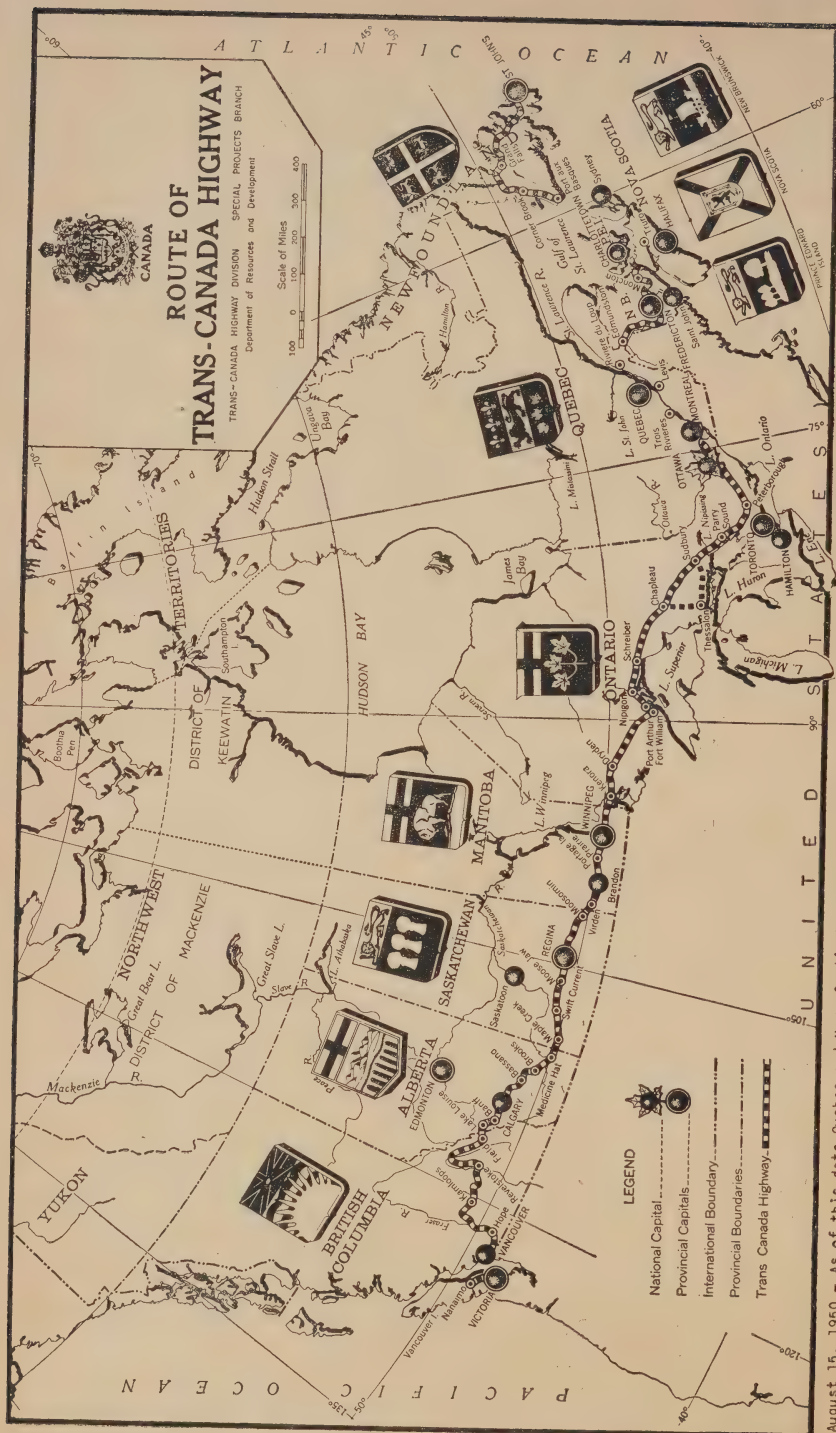
\$249,000,000 was supplied by the provincial governments, and the remainder by the Federal and municipal governments. To fully appreciate the extent of usage of public roads and the high cost of maintenance, it must be realized that motor-vehicle registrations have doubled in the past fifteen years, rising from 1,083,000 in 1933 to 2,035,000 in 1948. In addition to domestic traffic, Canadian highways carry millions of foreign tourist cars annually, 6,500,000 entries having been recorded in 1948. Again, apart from wear and tear by vehicles, the natural climatic conditions are severe and play havoc with the roadways in the form of snow, frost, floods, etc.

**The Trans-Canada Highway.**—The construction of a national coast-to-coast highway was sanctioned by the passing of the Trans-Canada Highway Act in December, 1949. The Highway, an estimated 4,933 miles in length, will be built to prescribed standards, each province constructing and maintaining that portion within its own boundaries. Each province will also determine the route of the highway within its borders, provided that adjacent provinces agree on locations where it crosses provincial boundaries and that routes selected are the shortest practical east-west routes. The Federal Government will reimburse each province for 50 p.c. of new construction, and will share equally with each province the cost of highways already constructed that are to be taken into the Highway plan. The total federal contribution is limited to \$150,000,000.

Actual work of construction is under the direct control of the Provincial Governments, but the Federal Department of Resources and Development is charged with the responsibility of the Highway from the national standpoint. It administers the Act and the federal engineering work relating thereto, checks all specifications for new work, inspects construction and approves contract awards. In all cases it sees that federal interests are protected.

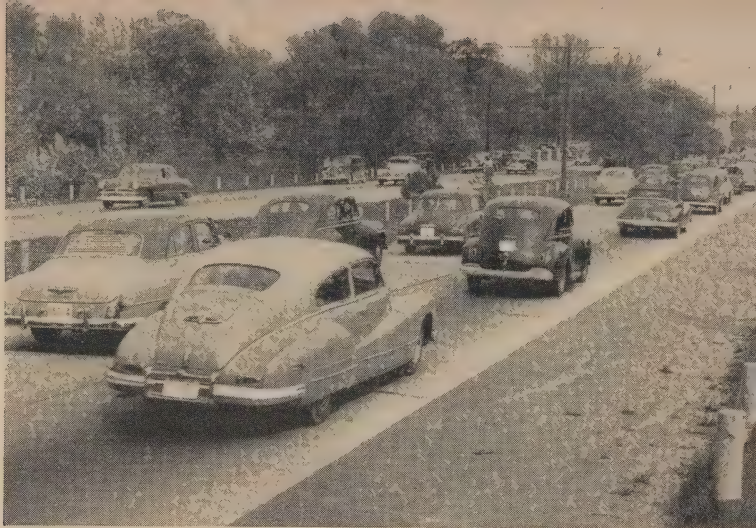
The Act calls for the Highway to be completed by December, 1956. By the end of June, 1950, all provinces, except Quebec and Nova Scotia, had signed agreements with the Federal Government and were actively





August 15, 1950 - As of this date Quebec and Nova Scotia have not designated their route.

Blossom Sunday traffic through the Niagara Peninsula, Ont.



engaged in arranging their programs. Most of them had received federal approval on contracts let for work to commence at once and had actually initiated work amounting to \$11,200,000. An amount of \$20,000,000 was provided to cover federal contributions during the fiscal year 1950-51.

Motor-Vehicles

There were more motor-vehicles registered in Canada in 1949 than ever before. The number, including Newfoundland for the first time, was 2,290,628, of which 1,672,352 were passenger cars and 618,276 commercial vehicles, including 545,677 trucks, 7,696 buses and 64,903 miscellaneous vehicles. Motorcycle registrations showed a decided increase over 1948, being 39,994 as against 33,939. The apparent supply of new passenger automobiles, which numbered only 2,099 in 1945, increased to 82,137 in 1946, 163,787 in 1947, 152,336 in 1948 and 212,321 in 1949.

Provincial revenues from motor-vehicle registrations and licences reached a high of \$58,200,114 in 1949, and provincial gasoline tax revenues amounted to \$137,676,004.

Motor-Vehicles Registered, by Provinces, 1940-49

| Year    | P.E.I. | N.S.   | N.B.   | Que.    | Ont.    | Man.    | Sask.   | Alta.   | B.C.    | Canada                 |
|---------|--------|--------|--------|---------|---------|---------|---------|---------|---------|------------------------|
| 1940... | 8,070  | 57,873 | 39,000 | 225,152 | 703,872 | 90,932  | 126,970 | 120,514 | 128,044 | 1,500,829 <sup>1</sup> |
| 1941... | 8,015  | 62,805 | 41,450 | 232,149 | 739,194 | 96,573  | 131,545 | 126,127 | 134,499 | 1,572,784 <sup>1</sup> |
| 1942... | 7,537  | 58,872 | 37,758 | 222,622 | 715,380 | 93,147  | 130,040 | 125,482 | 132,893 | 1,524,153 <sup>1</sup> |
| 1943... | 8,032  | 59,194 | 40,205 | 222,676 | 691,615 | 93,494  | 133,839 | 127,559 | 134,691 | 1,511,845 <sup>1</sup> |
| 1944... | 8,412  | 57,933 | 39,570 | 224,042 | 675,057 | 93,297  | 140,992 | 127,416 | 135,090 | 1,502,567 <sup>1</sup> |
| 1945... | 8,835  | 56,699 | 41,577 | 228,681 | 662,719 | 92,758  | 140,257 | 130,153 | 134,788 | 1,497,081 <sup>1</sup> |
| 1946... | 9,192  | 62,660 | 44,654 | 255,172 | 711,106 | 101,090 | 148,206 | 138,868 | 150,234 | 1,622,463 <sup>1</sup> |
| 1947... | 9,948  | 70,300 | 51,589 | 296,547 | 800,058 | 112,149 | 158,512 | 155,386 | 179,684 | 1,835,959 <sup>1</sup> |
| 1948... | 11,290 | 76,319 | 62,366 | 335,953 | 874,933 | 128,000 | 167,515 | 173,950 | 202,126 | 2,034,943 <sup>1</sup> |
| 1949... | 13,211 | 83,443 | 67,280 | 384,733 | 970,137 | 139,836 | 185,027 | 200,428 | 230,008 | 2,290,628 <sup>2</sup> |

<sup>1</sup> Includes registrations in Yukon and the Northwest Territories. <sup>2</sup> Includes 2,544 registrations in Yukon and the Northwest Territories, and 13,981 in Newfoundland.

**Motor-Carriers.**—Motor-buses and motor-trucks have increased steadily in importance in the transportation field, providing as they do freight and passenger service between numerous localities, both with and without railway facilities. During the war years rationing of gasoline, tires and motor-vehicles restricted the service considerably. The heavy short-haul traffic of employees to and from munition factories, air fields, etc., obscured, in the statistics, the curtailment in inter-urban traffic, but since buses have become more plentiful, vehicle mileage of inter-city and rural transit systems has shown a decided increase.

### *Statistics of Motor-Carriers, 1945-48*

| Item   | 1945        | 1946        | 1947        | 1948        |
|--|-------------|-------------|-------------|-------------|
| Investment in land, buildings, and equipment..... \$ | 59,400,753  | 72,725,752  | 91,278,837  | 100,116,005 |
| Revenues..... \$                                     | 88,157,490  | 102,241,162 | 118,139,496 | 132,579,445 |
| Equipment—   |             |             |             |             |
| Trucks..... No.                                      | 6,486       | 6,652       | 7,183       | 7,858       |
| Tractor, semi-trailers..... "                        | 2,063       | 2,387       | 2,657       | 2,867       |
| Trailers..... "                                      | 1,154       | 1,368       | 1,791       | 1,694       |
| Buses..... "   | 3,322       | 3,824       | 4,125       | 4,090       |
| Passengers carried..... "                            | 239,858,000 | 261,041,676 | 281,651,437 | 295,671,927 |
| Freight, inter-city and rural.... ton                | 10,854,000  | 11,944,384  | 13,071,660  | 13,843,387  |

### *Shipping*

Canadian shipping is divided into two classes: (1) foreign service, and (2) coasting service. The first is subdivided into: (a) seagoing, i.e., between Canadian ports on the Pacific and Atlantic Oceans and on the St. Lawrence up to Montreal, and ports in other countries, including fishing at sea; and (b) inland, i.e., between Canadian and United States ports on the Great Lakes and connecting rivers. The second is service between Canadian ports, including fishing in Canadian waters. Shipping statistics are collected only from ports for which there is an official of the Customs and Excise Division of the National Revenue Department, and consequently do not include shipping on the Mackenzie River, Lake Winnipeg, etc.

### *Tonnages<sup>1</sup> of Cargoes Loaded and Unloaded at Canadian Ports to and from Vessels in Foreign Service, 1941-49*

| Year      | Loaded     | Unloaded   | Year      | Loaded     | Unloaded   |
|-----------|------------|------------|-----------|------------|------------|
| 1941..... | 17,462,110 | 29,898,940 | 1946..... | 19,272,394 | 26,440,236 |
| 1942..... | 13,624,322 | 27,106,229 | 1947..... | 21,706,754 | 32,851,254 |
| 1943..... | 16,524,137 | 27,863,754 | 1948..... | 20,440,955 | 36,844,187 |
| 1944..... | 18,955,983 | 27,656,003 | 1949..... | 22,441,732 | 28,319,334 |
| 1945..... | 22,333,887 | 24,529,346 |           |            |            |

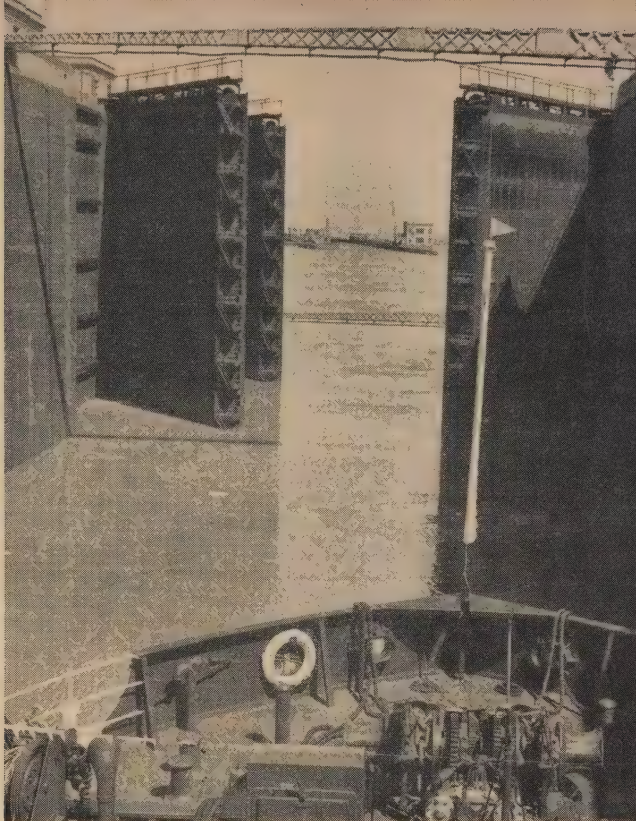
<sup>1</sup> Tons weight plus tons measurement.

### *Harbours*

Facilities provided for the co-ordination of land and water transportation at Canada's many ports include docks and wharves, warehouses for general cargo, cold-storage warehouses, harbour railway and switching connections,



The gates of Lock No. 7 in the Welland Ship Canal opening to permit passage of a freighter. The eight locks between Port Colborne on Lake Erie and Port Weller on Lake Ontario overcome a drop of 326 ft.



grain elevators, coal bunkers, oil storage tanks and, in the chief harbours, repair and dry-dock accommodation. Eight of the principal harbours—Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill—are administered by the National Harbours Board, seven others by commissions that include municipal as well as Federal Government appointees, and the remainder by harbour masters directly under the authority of the Department of Transport.

## Canals

There are six canal systems under the Department of Transport, namely: (1) between Fort William and Montreal, (2) from Montreal to the International Boundary via the Richelieu near Lake Champlain, (3) from Montreal to Ottawa, (4) from Ottawa to Kingston, (5) from Trenton to Lake Huron, and (6) from the Atlantic Ocean to the Bras d'Or Lakes in Cape Breton. These canals have opened to navigation from the Atlantic about 1,875 miles of waterways. Under the Department of Public Works or other authority are minor canals and locks that facilitate local navigation.

The Great Lakes and St. Lawrence River form one of the busiest waterways in the world. More traffic passes up and down the St. Mary's River than any other waterway; in 1949 it reached a tonnage of 96,187,769.

## Civil Aviation

The control of civil aviation in Canada is under the jurisdiction of the Federal Government. The Department of Transport deals with the technical side which includes matters of registration of aircraft, licensing of airmen, establishment and maintenance of airports and facilities for air navigation, air-traffic control, accident investigation and the safe operation of aircraft. Certain statutory functions with respect to the issue of licences to operate commercial air services and the subsequent economic regulation of commercial air services in accordance with the dictates of the public interest are assigned to the Air Transport Board.

Air transport services are grouped into two broad classes: (1) Scheduled Services, providing regular point-to-point services and (2) Non-Scheduled Services which include services not on regular time schedules, chartered and contract services, and specialty services such as forestry or other surveys.

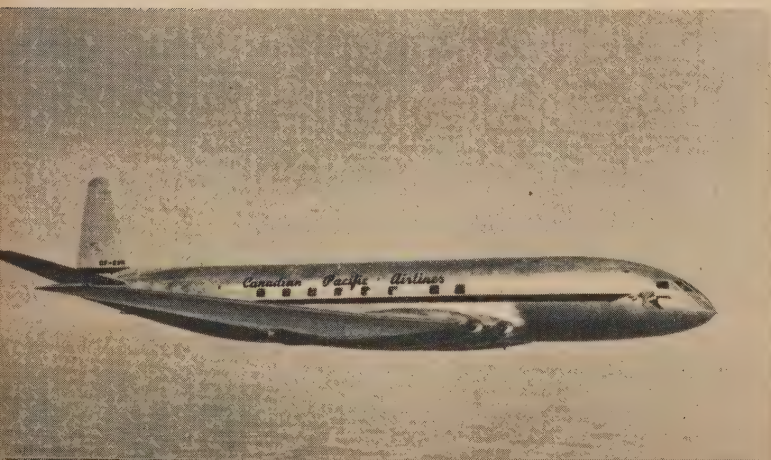
**Trans-Canada Air Lines.**—Incorporated in 1937, TCA in 1949 operated 16,000 miles of routes, flying to 40 communities in Canada, the United States, the British Isles, Bermuda and the West Indies. During 1949, emphasis was placed on the improvement of services already established, 100 flights were planned daily and 98 p.c. of all scheduled mileage was completed. The sum total of the company's domestic and international operations during the year amounted to 84,000,000 ton-mileage of air transportation.

In the domestic service, 648,574 revenue passengers, 3,403,810 ton-miles of mail and 2,160,644 ton-miles of commodity traffic were carried in 1949 as compared with 532,555 passengers, 2,294,088 ton-miles of mail and 1,608,102 ton-miles of commodity traffic in the previous year. A third transcontinental service between Montreal and Vancouver went into operation during the year. This additional flight was routed through Edmonton and Saskatoon.

Overseas flights during the year 1949 accommodated 36,512 passengers, 404,903 ton-miles of mail and 1,577,987 ton-miles of commodity transport, compared with 32,821 passengers, 369,534 ton-miles of mail and 941,270 ton-miles of commodity transport in the preceding year.

Flight equipment at the end of 1949 included 20 four-engined North Stars and 27 twin-engined DC-3's.

**Canadian Pacific Air Lines.**—Canadian Pacific Air Lines operate a widespread group of north-south schedules across Canada with routes, as at the end of 1949, covering a distance of 10,687 miles. A non-scheduled



Two "Comet" jet-propelled air liners have been ordered by the Canadian Pacific Airlines for Pacific service. These jet aircraft, first to be ordered by any North American air line, will be delivered in 1951. They will carry 48 passengers from Vancouver to Tokyo in ten hours with two stops for re-fuelling.



*The International Aviation Building, Montreal, which houses the offices of the International Civil Aviation Organization and the International Air Transport Association. These two bodies are made up of business and government representatives of 50 countries. Here you can buy a ticket to travel almost anywhere on any of the world's major air lines.*



service between The Pas and Churchill, Man., was inaugurated in 1949 and an additional service was put into operation early in 1950 between Prince George and Kamloops, B.C., via Williams Lake.

The trans-Pacific air service between Vancouver and Australia and New Zealand was inaugurated in July, 1949, and the service between Vancouver and the Orient, via Alaska, Shemya, Tokyo, Shanghai and Hong Kong, in September, 1949. In domestic CPA operations during the fiscal year ended Mar. 31, 1950, 4,357,629 revenue miles, 47,253,401 passenger-miles, 1,069,149

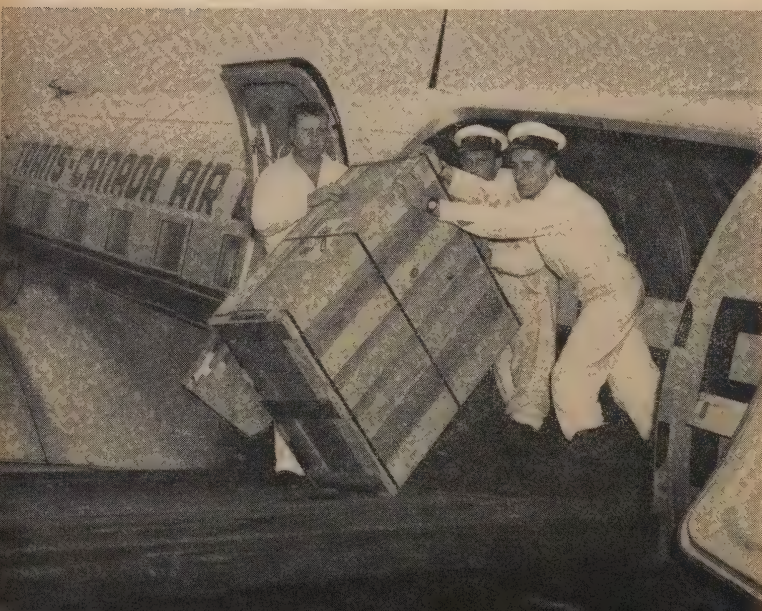


cargo ton-miles and 393,584 mail ton-miles were flown and 130,261 revenue passengers were carried. On the international south-Pacific service for the eight months of operation ended Mar. 31, 1950, 332,551 revenue miles, 4,614,598 passenger miles, 1,801 cargo ton-miles and 3,422 mail ton-miles were flown and 819 revenue passengers were carried. On the international north-Pacific service for the six months of operation ended Mar. 31, 1950, 383,246 revenue miles, 4,937,378 passenger-miles, 34,152 cargo ton-miles, and 17,642 mail ton-miles were flown and 873 revenue passengers carried.

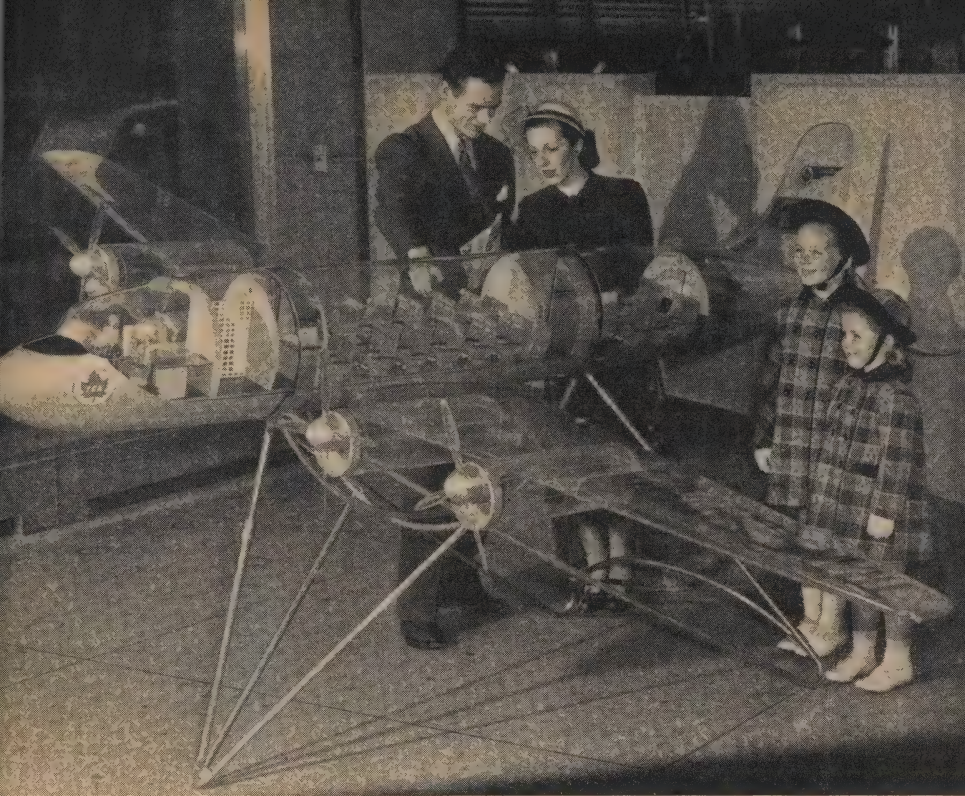
**Independent Air Lines.**—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are eight other domestic air lines licensed to operate scheduled services in Canada. However, most of the independent air lines operate non-scheduled services which, with few exceptions, are charter services from designated bases. It is in this field that the greatest development has taken place in recent years. Non-scheduled charter services and non-scheduled specific-point services provide effective means of access to sections of Canada that are inaccessible by other means of transportation and also act as feeders to the scheduled air lines.

**International Agreements.**—Canada's position in the field of aviation as well as her geographical location makes it imperative that she should co-operate with other nations of the world engaged in international civil aviation. Canada played a major part in the original discussions that led to the establishment of the International Civil Aviation Organization now with permanent headquarters at Montreal. Canada has actively participated in the deliberations of ICAO and its many committees, and as a result has secured the benefits of the joint knowledge and experience of all member States in the technical and economic aspects of all phases of civil aviation.

Since the entry of Newfoundland into union with Canada on Mar. 31, 1949, new bilateral air agreements have been signed between Canada and the United States, the United Kingdom, Belgium and France. Canada has been given extended rights on the North Atlantic for traffic from Ireland, Iceland



*TCA's air cargo liners handle fast shipments of highly perishable commodities, such as lobsters and other fresh fish, strawberries and flowers.*



*Travellers are shown seating arrangements made for their trip in a plastic model of a TCA North Star.*

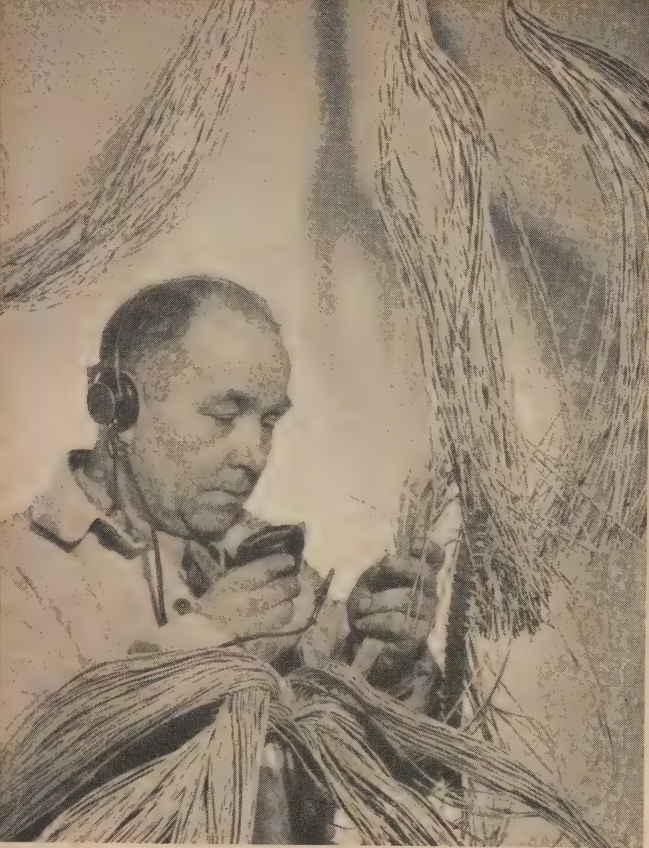
and the Azores, and has been given rights in Brussels by the Belgian Government and landing rights in France by the French Government.

On the Caribbean route, rights have been obtained in Florida from the United States and for additional points of call in British territories. In the Pacific new agreements provide for calls at Honolulu, Fiji and Hong Kong. The bilateral commercial air agreements between Canada and the United Kingdom and between Canada and the United States, signed during 1949, opened the way for the inauguration of TCA services from Montreal to New York and from Montreal and Toronto to the Bahamas and Jamaica with stops at Tampa or St. Petersburg, Florida. Operating certificates have been issued to fourteen Commonwealth and foreign scheduled services flying into Canada.

### *Telegraphs*

Six telegraph systems are operated in Canada, four in conjunction with the railways, one by the Federal Government and one small system that is owned and operated independently. One United States company uses lines across Canadian territory; one private Canadian company operates a wireless system; and four cable companies, in addition to the telegraph companies, operate cables from Canadian stations. In all, there are 35 cables between





*Cable splicer identifying 1,212 separate wires in a 606-pair cable and splicing them to 1,212 wires in six 101-pair cables. These cables form part of the C.P.R. Montreal communications network and each cable, though less than 2 in. in diameter, is equivalent in capacity to a 250-ft. pole carrying 120 ordinary crossarms.*

Canada (including Newfoundland) and the United States, England, Ireland, the Azores, Australia, New Zealand, St. Pierre and Miquelon, and Bermuda. Two cables link North Sydney and Canso, N.S., three cables North Sydney and Newfoundland, and three cables Canso, N.S., and Newfoundland.

These systems have 408,458 miles of telegraph wire in Canada, 5,301 miles outside of Canada, and 62,980 nautical miles of submarine cable between Canada and other countries. Multiple circuits normally produce 930,856 miles of channels for telegraphic use. During 1949 a total of 20,063,078 telegrams and 1,642,278 cablegrams, excluding messages between foreign countries, were handled by these systems.

### *Telephones*

At the end of 1948 Canada had 2,451,868 telephones or about 19 per 100 population, a figure exceeded only by the United States and Sweden. However, in telephone conversations per capita, Canadians are second only to their neighbours to the south. The estimated number of telephone calls on all systems in Canada reached a peak in 1948 at 4,117,217,182, representing an average of 1,679 calls per telephone or 320 calls per head of population. Long-distance calls, too, attained a new record at 91,875,182, and calls to other countries were generally higher. Canadians are currently within



telephone reach of 52 overseas countries and connections are possible with nearly 96 p.c. of all telephones in the world.

Of the 2,992 telephone systems operating in 1948, no fewer than 2,278 were co-operatively owned systems serving rural lines in rural districts of Saskatchewan, Alberta, Nova Scotia and Ontario. The largest of the 487 stock companies were the Bell Telephone Company and the British Columbia Telephone Company; the former, with its subsidiaries, operating in Ontario and Quebec, reported 63 p.c. of all telephones in Canada. The provincial systems of the Prairie Provinces reported 10 p.c. of the total. In the eastern provinces provincial and federal systems serve outlying districts where no commercial service is available.

About 57 p.c. of all telephones and 92 p.c. of those in urban centres of over 10,000 population are operated from automatic switchboards, which are replacing manual switchboards as rapidly as the availability of materials, buildings and mechanical personnel permits. Capital investment in telephone systems amounted to \$615,941,540 in 1948, and employees, numbering 38,851, received \$77,497,980 in salaries and wages.

## Radio

At Sept. 1, 1950, there were operating in Canada 150 standard broadcast band stations, of which 19 were Canadian Broadcasting Corporation stations and 131 privately owned stations; also 34 short-wave stations, of which 26 were Canadian Broadcasting Corporation stations and eight privately owned stations. Private receiving licences numbered about 2,177,000, many of which covered more than one set.

**Canadian Broadcasting Corporation.**—The publicly owned Canadian Broadcasting Corporation is operated as a national public service; privately owned stations provide local, community service. As constituted under the Broadcasting Act, the CBC is responsible to Parliament through a Minister of the Crown. From time to time the work of the Corporation is reviewed by a special committee of the House of Commons, and in 1950 the general

*Drilling crew breaks the soil in preparation for the construction of CBC's Toronto television transmitter.*





*The producer is the 'brain' of the radio program. His cues direct every component of the broadcast—actors, orchestra, announcers and technicians.*

field of radio broadcasting was reviewed by a Royal Commission on National Development in the Arts, Letters and Sciences.

CBC policy is determined by a Board of nine Governors who act as trustees of the national interest in broadcasting. The Governors, representing the main geographical divisions of Canada and various facets of Canadian life, are appointed by the Governor General in Council for three-year terms. The position of Chairman is a full-time one. Day-to-day operations and administration of the system are the responsibility of a General Manager and an Assistant General Manager. The CBC derives most of its revenues from an annual licence fee of \$2.50 paid by owners of radio receiving sets, and income from a limited amount of commercial broadcasting; less than 20 p.c. of the total hours of network broadcasting are devoted to commercial programs.

*Broadcasting Facilities and Program Service.*—The CBC has 45 broadcasting stations, including eight 50-kilowatt transmitters, among the highest-powered on the continent; 11 of lesser power; five FM stations; three domestic short-wave transmitters; and 18 low-power repeaters operating automatically with the network lines and serving remote areas of Canada. Studios and other broadcasting facilities are operated at six major production centres across Canada, and less extensive facilities at five other points. Program service extends from St. John's, Newfoundland, on the east, to Vancouver Island on the west. Television broadcasting is scheduled to begin late in 1951, at Toronto and Montreal.

A high percentage of the privately owned radio stations in Canada are affiliated with the CBC networks. The Trans-Canada and Dominion



networks serve English-speaking listeners from sea to sea, and the French network serves the Province of Quebec. The networks are made up from the 19 CBC-owned and 56 privately owned stations. An additional 21 privately owned stations are also affiliated with CBC networks and may receive network service. Short-wave stations are used to reach French-speaking listeners in northern Quebec and on the western prairies, and another serves the northern coastal region and interior of British Columbia.

Canada's system of broadcasting is designed to overcome the problems posed by great distances, a scattered population, two official languages, six of the world's 24 time zones and an extra time division in Newfoundland. Programming is planned regionally as well as nationally on CBC networks not only to provide as complete a service as possible during the broadcasting hours of each region but also to fulfil the regional needs and tastes of the listening public in various parts of the country. National programs are planned with a view to uniting the cultural tastes and interests of Canadians and to provide good radio entertainment from each of the main centres. At least 50 p.c. of the total hours of network broadcasting is devoted to musical programs. The remaining 50 p.c. is devoted to drama, news, special events and spoken-word programs.

In addition to entertainment programs of all kinds there are special services which cover a wide range of interests shared by groups, organizations and associations, and educators, as well as those expressed by individual listeners. Through the facilities of the CBC, schools throughout Canada are provided with at least 30 minutes daily of broadcast programs specifically planned by departments of education to meet classroom requirements. In addition, national school broadcasts, prepared with the advice of the departments of education and teachers, and financed by the CBC, are heard on Fridays. A regular portion of time on CBC networks is devoted to children's programs for out-of-school listening. Rural communities are served by regional, noon-hour farm broadcasts which include farm market prices, production methods, weather forecasts and other information useful to farmers and through the weekly broadcasts of National Farm Radio Forum farm people can take an active part in the welfare of Canadian agriculture.

*Commentator of the Portuguese Section, CBC International Service, describes Montreal to listeners in Brazil from the top of a downtown hotel.*





Programs of interest to women are planned for afternoon listening and include consumer information and household economics. Religious programs are given regular network time and during 1950 the National Sunday Evening Hour has provided special religious services for listeners across Canada. Political broadcasts are also allotted regular network time and are arranged on a provincial as well as a national basis. For listeners of discriminating taste, CBC Wednesday Night programs offer varied programs covering drama, music, poetry, opera, talks and recitals by internationally known artists.

*CBC International Service.*—In operating the International Service the CBC in effect acts as agent for the Government. Funds are voted specifically by Parliament for the purpose of maintaining this service and none of the revenues of the CBC for service to Canadian listeners are used. The policies of the International Service are laid down after consultation with the Department of External Affairs, and there is an Advisory Committee composed of representatives of the Corporation, of the Department of External Affairs and of the Department of Trade and Commerce.

Since its inception in February, 1945, the CBC International Service has so expanded that the "Voice of Canada" is now heard abroad in twelve languages. Built and operated by the CBC on behalf of the Canadian Government, its transmitters, located near Sackville, N.B., send out the strongest signal heard in Europe from North America.

In addition to broadcasting Canadian programs approximately 14 hours daily, the International Service has developed a liaison with broadcasting organizations in other countries so that an increasing number of programs are relayed over national networks in foreign countries. An important function of the International Service has been the coverage of United Nations activities. This is done by means of reports and interviews by the CBC correspondent at Lake Success and foreign-language correspondents. The International Service also places its transmitters at the disposal of the United Nations Radio Division for the broadcasting of its official reports and commentaries to Europe and the south Pacific.

### *Postal Service*

Postal service in Canada is provided from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont. (the most southerly point of Canada) to settlements and missions far within the Arctic. Points along Hudson Bay receive mail by steamer and by air-stage service and aircraft courtesy flights.

The mails are carried by railway, air, motor-vehicle and inland and coastal steamer. The principal means of mail transportation is the railway mail service which operates along about 40,000 miles of track and covers an annual track mileage exceeding 48,000,000. The railway mail service employs a staff of 1,386 mail clerks who prepare the mail for prompt delivery and despatch while en route in railway mail cars.

Canada's air-mail system provides several flights daily from east to west and constitutes a great air artery from St. John's, Newfoundland, to Victoria, B.C., intersected with branch and connecting lines radiating to every quarter and linking up with the United States air-mail system. Since July 1, 1946, all first-class domestic mail up to and including one ounce in weight has been carried by air between one Canadian point and another, whenever delivery

is thus facilitated. Air-stage service provides the sole means of communication with the outside for many remote areas. There are, altogether, approximately 19,000 miles of air-mail and air-stage routes in Canada.

Post Offices\* are established for the transaction of all kinds of postal business at places where the population warrants. Letter-carrier delivery, twice daily to residential districts and three times to business districts, is given in 121 towns and cities by some 5,000 letter carriers. An extensive organization distributes mail to the rural districts of the country: 5,087 rural mail routes are covered by mail couriers over 116,516 miles of territory, serving 368,758 rural mail boxes. Isolated points are served by motor-vehicle and stage services. The rural mail routes are laid out in circular patterns, each about 25 miles in circumference, and the couriers, who provide all the requisite equipment, are employed on the tender system.

The Post Office delivers an estimated 2,500,000,000 items of mail annually, and to do so utilizes the most up-to-date mechanical handling devices, including conveyor belts and electric cancelling machines, etc., in its larger offices. There were, in all, 12,415 post offices in operation across the country on Mar. 31, 1950, and money-order offices numbered 11,252. For the year ended Mar. 31, 1950, postage paid by means of postage stamps amounted to \$57,249,306 and Post Office Savings Banks, in operation in all parts of the country, had combined deposits of \$38,754,633.

The increase in postal business is one of the impressive features of Canada's economic development during the past 16 years. From \$30,367,465 in 1934, the net income increased year by year to \$84,528,655 by Mar. 31, 1950, the gross revenue for the latter year being \$101,277,435, an all-time high.

\* Figures are as at Oct. 1, 1950.

*Conveyor belt in a city post office.*







# Trade

## ★ Domestic Trade

**G**REAT economic effort is expended in transforming Canada's varied resources into products ready for consumption and in carrying out the distribution of these and imported goods to a widely dispersed population of about 14,000,000.

Domestic trade embraces a wide range of activities. It constitutes not only the transportation and distribution of material goods, but is also considered to include the services Canadians use to meet their day-to-day requirements for medical attention, entertainment, education, and various other household and personal needs. All means of transportation—rail, air, water and road—are employed. Warehousing facilities range in size from the great grain elevators of the Canadian West to small storage plants. Every Canadian community has its quota of wholesale and retail outlets through which goods and services are channelled to the consumer.

The full extent and importance of the domestic trade of the country can best be appreciated when it is realized that productive operations brought Canada's national income to \$16,074,000,000 in 1949 of which \$4,000,000,000 was the total value of goods and services exported.

### *Merchandising and Service Establishments*

Between the Canadian manufacturer or importer and the Canadian consumer there exists a great and complicated distributive system. Its function is to channel a diversity of products most effectively and economically to the Canadian market. Closely allied with this field is a wide range of services upon which Canadians rely to meet their needs for recreation, personal services, repairs, etc.

The full extent of this operation is measured only by the Census. In 1951, the third Decennial Census of Distribution will take place. Every wholesale, retail and service or repair establishment in Canada will be covered by a field force of 18,000 enumerators. During 1952 each of these businesses will be asked to supply details regarding 1951 business activities from which a consolidated picture of the Canadian market and the trades which service it will be obtained. Results of the 1951 Census should be known early in 1953, a little more than a year after the Census year. Information obtained from the Census will provide the necessary data for the revision of annual and monthly sales estimates developed from sample surveys.

Much has been done in recent years to improve the estimates of Canada's retail trade which are compiled each month. The latest results show figures which make allowance for the effect of changes in the number of retail

businesses operating. Previously the figures had been based on a constant sample of retail stores. The new estimates are somewhat higher than those previously issued because of the growth in the number of retail stores since the last (1941) Census.

The latest estimate places the retail trade of Canada at \$8,921,000,000 in 1950. This figure represents a gain of 6 p.c. over the 1949 total of \$8,427,900,000. Estimates for a few of the retail trades are shown in the following table together with provincial totals for the past few years.

### *Retail Store Sales for Selected Kinds of Business, 1941, 1949 and 1950*

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Selected Trades                   | Sales          |                |                | Percentage Change— |               |
|-----------------------------------|----------------|----------------|----------------|--------------------|---------------|
|                                   | 1941           | 1949           | 1950           | 1949-50            | 1941-50       |
|                                   | \$'000'000     | \$'000,000     | \$'000'000     |                    |               |
| Grocery and combination stores..  | 567.3          | 1,336.9        | 1,409.1        | +5.4               | +148.4        |
| Department stores.....            | 377.8          | 855.5          | 861.5          | +0.7               | +128.0        |
| Motor-vehicle dealers.....        | 360.2          | 1,030.5        | 1,404.6        | +36.3              | +290.0        |
| Country general stores.....       | 213.3          | 478.9          | 471.2          | -1.6               | +120.9        |
| Garages and filling stations..... | 205.1          | 483.0          | 549.2          | +13.7              | +167.8        |
| Family clothing stores.....       | 73.8           | 156.8          | 148.0          | -5.6               | +100.5        |
| All other trades.....             | 1,639.4        | 4,086.3        | 4,077.1        | -0.2               | +148.7        |
| <b>Totals.....</b>                | <b>3,436.9</b> | <b>8,427.9</b> | <b>8,920.7</b> | <b>+5.8</b>        | <b>+159.6</b> |

### *Retail Store Sales, by Provinces, 1941, 1949 and 1950*

| Province                | Sales          |                            |                            | Percentage Change— |               |
|-------------------------|----------------|----------------------------|----------------------------|--------------------|---------------|
|                         | 1941           | 1949                       | 1950                       | 1949-50            | 1941-50       |
|                         | \$'000,000     | \$'000,000                 | \$'000,000                 |                    |               |
| Maritime Provinces..... | 282.8          | 613.8 <sup>1</sup>         | 643.9 <sup>1</sup>         | +4.9               | +127.7        |
| Quebec.....             | 818.7          | 1,890.7                    | 1,990.9                    | +5.3               | +143.2        |
| Ontario.....            | 1,407.0        | 3,234.5                    | 3,470.6                    | +7.3               | +146.7        |
| Manitoba.....           | 210.8          | 556.3                      | 583.6                      | +4.9               | +176.8        |
| Saskatchewan.....       | 186.9          | 519.5                      | 520.0                      | +0.1               | +178.2        |
| Alberta.....            | 221.1          | 673.1                      | 711.5                      | +5.7               | +221.8        |
| British Columbia.....   | 309.6          | 940.0                      | 1,000.2                    | +6.4               | +223.1        |
| <b>Totals.....</b>      | <b>3,436.9</b> | <b>8,427.9<sup>1</sup></b> | <b>8,920.7<sup>1</sup></b> | <b>+5.8</b>        | <b>+159.6</b> |

<sup>1</sup> Exclusive of Newfoundland.

In recent years, and especially from 1948 through 1950, the sales of motor-vehicles and household durable goods—furniture, radios and appliances—have shown much greater increases than have the non-durable merchandise items—food and clothing. If price increases for the latter were taken into account it would likely be found that consumer purchases of these, in quantity terms, have been decreasing. Commitments on the part of many Canadians for the purchase of major items have undoubtedly acted as a curb on the expansion of their purchases of non-durables. It must be pointed out, however, that the level of trading in these goods remains relatively high. The small British automobiles have increased in popularity because of their economy of cost and operation. This has been important to many car buyers

A wide selection of processed chicken is available to the shopper in large chain grocery stores.



in the light of prevailing high price levels for most commodities. Continued activity in housing construction has kept the demand for durable household goods at a high level.

The following table shows the outstanding growth in sales of new passenger cars since 1948 and the number of cars purchased on the instalment plan through finance companies. The proportion of cars financed has shown a considerable increase in the past two years.

### *New Passenger-Car Sales and Financing, 1948, 1949 and 1950*

| Province            | 1948           |               |             | 1949 <sup>1</sup>          |                           |             | 1950 <sup>1</sup>          |                           |             |
|---------------------|----------------|---------------|-------------|----------------------------|---------------------------|-------------|----------------------------|---------------------------|-------------|
|                     | Sold           |               | Financed    | Sold                       |                           | Financed    | Sold                       |                           | Financed    |
|                     | No.            | No.           |             | No.                        | No.                       |             | No.                        | No.                       |             |
| Maritimes.....      | 11,142         | 2,510         | 22.5        | 15,850 <sup>1</sup>        | 5,086 <sup>1</sup>        | 32.1        | 24,600 <sup>1</sup>        | 8,900 <sup>1</sup>        | 36.2        |
| Quebec.....         | 26,266         | 7,164         | 27.3        | 36,782                     | 12,387                    | 33.7        | 54,200                     | 20,400                    | 37.6        |
| Ontario.....        | 67,000         | 12,927        | 19.3        | 90,272                     | 22,313                    | 24.7        | 135,900                    | 38,200                    | 28.1        |
| Manitoba.....       | 8,190          | 1,524         | 18.6        | 11,081                     | 2,190                     | 19.8        | 16,600                     | 4,700                     | 28.3        |
| Saskatchewan.....   | 9,562          | 1,322         | 13.8        | 13,081                     | 2,326                     | 17.8        | 19,400                     | 5,000                     | 25.8        |
| Alberta.....        | 10,959         | 2,139         | 19.5        | 14,994                     | 3,977                     | 26.5        | 24,700                     | 8,000                     | 32.4        |
| British Columbia... | 12,536         | 2,337         | 18.6        | 20,258                     | 4,906                     | 24.2        | 34,200                     | 10,200                    | 29.8        |
| <b>Totals.....</b>  | <b>145,655</b> | <b>29,923</b> | <b>20.5</b> | <b>202,318<sup>1</sup></b> | <b>53,185<sup>1</sup></b> | <b>26.3</b> | <b>309,600<sup>1</sup></b> | <b>95,400<sup>1</sup></b> | <b>30.8</b> |

<sup>1</sup>Exclusive of Newfoundland.

**Chain Stores.**—Chain store sales in 1949 amounted to \$1,420,081,000, a gain of 6 p.c. over the 1948 sales volume of \$1,335,735,000. The sales made through 6,839 chain store units constituted 16 p.c. of all retail trade in Canada during 1949. Firms considered as 'chains' are those operating four or more stores under the same ownership with the exception of department stores which are classified as independents regardless of the number of stores operated.





*Oil refinery and storage tanks at Toronto, Ont.*

### **Chain Store Statistics, 1930 and 1941-49**

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Year      | Stores  | Retail Sales | Salaries to Store Employees | Stocks on Hand, End of Year |           | Accounts Outstanding, End of Year |
|-----------|---------|--------------|-----------------------------|-----------------------------|-----------|-----------------------------------|
|           |         |              |                             | Store                       | Warehouse |                                   |
|           | Av. No. | \$'000       | \$'000                      | \$'000                      | \$'000    | \$'000                            |
| 1930..... | 8,097   | 487,336      | 50,405                      | 60,457                      | ..        | ..                                |
| 1941..... | 7,622   | 639,210      | 57,777                      | 68,619                      | 20,976    | 38,376                            |
| 1942..... | 7,010   | 687,447      | 57,654                      | 66,940                      | 22,633    | ..                                |
| 1943..... | 6,780   | 703,950      | 58,804                      | 67,628                      | 22,603    | 15,527                            |
| 1944..... | 6,560   | 769,643      | 63,300                      | 66,944                      | 21,855    | 15,093                            |
| 1945..... | 6,580   | 876,209      | 68,196                      | 68,247                      | 29,013    | 16,369                            |
| 1946..... | 6,559   | 1,014,847    | 77,474                      | 85,345                      | 37,436    | 19,643                            |
| 1947..... | 6,716   | 1,177,323    | 91,266                      | 105,041                     | 43,546    | 31,493                            |
| 1948..... | 6,821   | 1,335,735    | 107,450                     | 119,132                     | 46,330    | 40,378                            |
| 1949..... | 6,838   | 1,420,081    | 115,903                     | 123,696                     | 46,755    | 50,001                            |

**Operating Results of Retail Stores.**—One of the Bureau's most practical services to the Canadian retail merchant is the operating results series. This information is compiled for chain and independent stores in alternate years and shows gross profit, detailed expense breakdown, net profit, inventory ratios and other related information. The following table illustrates the general form and nature of the results, though publications are available

giving much more detailed information and covering, in all, 20 trades in the retail independent-store and 10 in the chain-store fields.

### Operating Results of Retail Independent and Chain Stores

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

NOTE.—Items, except stock turnover, are expressed as percentages of net sales.

| Kind of Business                               | Gross Profit | Salaries and Wages <sup>1</sup> | Occupancy Expense | Total Expenses | Net Profit <sup>2</sup> | Stock Turn-over <sup>3</sup> |
|--|--------------|---------------------------------|-------------------|----------------|-------------------------|------------------------------|
|  | p.c.         | p.c.                            | p.c.              | p.c.           | p.c.                    |                              |
| <b>Independent Stores—</b>                     |              |                                 |                   |                |                         |                              |
| (Based on 1948 operations)                     |              |                                 |                   |                |                         |                              |
| Grocery and meat.....                          | 14.6         | 4.9                             | 2.3               | 10.2           | 4.4                     | 13.8                         |
| Women's clothing.....                          | 25.8         | 6.6                             | 4.6               | 15.4           | 10.4                    | 4.6                          |
| Family shoe.....                               | 26.6         | 7.0                             | 4.4               | 15.1           | 11.5                    | 2.2                          |
| Hardware.....                                  | 24.7         | 6.5                             | 3.2               | 13.2           | 11.5                    | 3.0                          |
| Furniture.....                                 | 26.7         | 6.8                             | 4.1               | 17.1           | 9.6                     | 3.2                          |
| Filling station.....                           | 19.0         | 7.0                             | 3.9               | 12.8           | 6.2                     | 20.9                         |
| Restaurant.....                                | 37.1         | 18.5                            | 7.9               | 30.2           | 6.9                     | 25.7                         |
| Fuel.....                                      | 20.4         | 3.4                             | 1.9               | 15.0           | 5.4                     | 11.7                         |
| Drug.....                                      | 28.4         | 8.7                             | 3.9               | 16.7           | 11.7                    | 3.8                          |
| Jewellery.....                                 | 39.1         | 11.9                            | 6.0               | 23.8           | 15.3                    | 1.5                          |
| <b>Chain Stores—(Based on 1949 operations)</b> |              |                                 |                   |                |                         |                              |
| Grocery and meat.....                          | 15.6         | 8.2                             | 1.1               | 13.1           | 2.5                     | 17.4                         |
| Women's clothing.....                          | 29.4         | 12.2                            | 4.8               | 25.3           | 4.1                     | 6.1                          |
| Shoe.....                                      | 30.8         | 14.8                            | 4.7               | 25.9           | 4.9                     | 2.4                          |
| Furniture.....                                 | 35.1         | 12.3                            | 4.8               | 31.1           | 4.0                     | 2.7                          |
| Drug.....                                      | 33.3         | 18.0                            | 4.6               | 30.3           | 3.0                     | 3.8                          |

<sup>1</sup>Independent store salaries do not include delivery service or proprietors' withdrawals. Chain store salaries include those paid to executives. <sup>2</sup>Independent store net profits are computed before deduction of proprietors' salaries or income tax. Chain store net profits are exclusive of executive salaries but include income tax. <sup>3</sup>Cost of goods divided by average of beginning and ending inventories.

**Retail Consumer Credit.**—The increasing volume of durable-goods buying has been accompanied by a marked rise in instalment buying. This form of purchase was gaining momentum in 1950 when the Government introduced, on Nov. 1, control measures which were a modified version of those in operation during the war period. The general effect of the regulations



Fruit stand at Byward Market, Ottawa.



was to impose a 33½ p.c. down-payment on automobile sales made on the instalment plan, a 20 p.c. down-payment provision on all other instalment sales unless used for certain specified producers' goods items, and to require payment within 18 months after a purchase agreement was instituted.

In 1949, sales made on the instalment plan were 51·7 p.c. above 1941 volume, while cash and charge sales showed increases of 109·9 p.c. and 96·6 p.c. respectively, during the same interval. Instalment sales had diminished during the War from 11·4 p.c. of total sales in 1941 to 4·1 p.c. of total sales in 1945, but formed 8·6 p.c. of 1949 sales.

Outstanding balances on both charge and instalment accounts showed a smaller rise between 1941 and 1949 than did sales for these two classes of account.

### **Retail Consumer Credit Statistics, 1941 and 1948-50**

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Period                 | Sales during Period |            |        |              | Accounts Receivable at End of Period |        |       |
|------------------------|---------------------|------------|--------|--------------|--------------------------------------|--------|-------|
|                        | Cash                | Instalment | Charge | Total Credit | Instalment                           | Charge | Total |
| Indexes (1941=100)     |                     |            |        |              |                                      |        |       |
| 1941—Average.....      | 100·0               | 100·0      | 100·0  | 100·0        | 100·0                                | 100·0  | 100·0 |
| 1948—Average.....      | 206·0               | 124·3      | 188·5  | 169·8        | 117·5                                | 160·2  | 144·2 |
| 1949—Average.....      | 209·9               | 151·7      | 196·6  | 183·5        | 159·9                                | 172·1  | 167·7 |
| 1949—Jan.-Mar.....     | 171·6               | 115·4      | 170·1  | 156·7        | 117·1                                | 137·2  | 129·8 |
| Apr.-June.....         | 216·7               | 153·5      | 203·8  | 189·2        | 125·2                                | 152·6  | 142·7 |
| July-Sept.....         | 207·0               | 142·4      | 191·8  | 177·4        | 130·0                                | 155·3  | 146·2 |
| Oct.-Dec.....          | 244·7               | 195·6      | 221·3  | 213·8        | 159·0                                | 172·1  | 167·7 |
| 1950—Jan.-Mar.....     | 178·1               | 141·2      | 176·6  | 166·3        | 146·5                                | 149·8  | 148·7 |
| Apr.-June.....         | 218·0               | 180·9      | 202·8  | 196·4        | 152·3                                | 157·5  | 155·4 |
| Percentage Composition |                     |            |        |              |                                      |        |       |
| 1941—Average.....      | 60·8                | 11·4       | 27·8   | 39·2         | 37·6                                 | 62·4   | 100·0 |
| 1948—Average.....      | 64·3                | 7·4        | 28·3   | 35·7         | 31·2                                 | 68·8   | 100·0 |
| 1949—Average.....      | 63·3                | 8·6        | 28·1   | 36·7         | 33·8                                 | 66·2   | 100·0 |
| 1949—Jan.-Mar.....     | 62·9                | 8·4        | 28·7   | 37·1         | 34·2                                 | 65·8   | 100·0 |
| Apr.-June.....         | 63·2                | 8·3        | 28·5   | 36·8         | 33·8                                 | 66·2   | 100·0 |
| July-Sept.....         | 64·0                | 8·6        | 27·4   | 36·0         | 33·6                                 | 66·4   | 100·0 |
| Oct.-Dec.....          | 63·0                | 9·0        | 28·0   | 37·0         | 33·8                                 | 66·2   | 100·0 |
| 1950—Jan.-Mar.....     | 62·8                | 9·2        | 28·0   | 37·2         | 35·8                                 | 64·2   | 100·0 |
| Apr.-June.....         | 62·8                | 9·3        | 27·9   | 37·2         | 35·3                                 | 64·7   | 100·0 |

**Wholesale Trade.**—Monthly index numbers of sales in several branches of wholesale trade have been prepared since 1935. Indexes of sales (on the base, 1935-39=100) are calculated each month for nine wholesale trades, based on reports received from a sample of firms whose sales made up about 68 p.c. of the total volume of business done by wholesalers proper in those trades in 1941. The sample of reporting firms is limited to wholesalers proper, i.e., wholesale establishments that perform the complete functions of jobbers and wholesalers, buying merchandise in large quantities on their own account and selling in broken lots. In addition, the trades selected are those engaged principally in supplying retailers and include the following: automotive supply and equipment, drugs, clothing, footwear, dry goods, fruits and vegetables, groceries, hardware, and tobacco and confectionery.

The dollar volume of wholesale sales in Canada, measured by the composite index of sales in nine lines of trade for which figures are available, was 3 p.c. higher in 1949 than in 1948. Fruit and vegetable wholesalers reported an 11-p.c. sales increase, benefiting from the removal of import restrictions





The delivery of heavy household equipment is greatly facilitated by the use of trucks fitted with hydraulic tailgate hoists.

which had been in effect during 1948 as part of the dollar conservation program. Drug wholesalers had an 8 p.c. gain in sales during 1949, and more moderate increases occurred in four other trades. The three trades making up the dry goods and apparel category all reported lower sales in 1949 than were made in 1948.

Results for the early part of 1950 show wholesale trade continuing upward at about the same rate as in 1949. Grocery wholesalers' sales were moving ahead a little faster (8 p.c.), but increases in other cases were quite moderate. The apparel trades continued to show reduced volume compared with the previous year, but the declines were not large, amounting to from 3 p.c. to 5 p.c.

### *Annual Indexes of Wholesale Sales, by Types of Business, 1941 and 1944-50*

(1935-39 = 100)

(Exclusive of Yukon, the Northwest Territories and Newfoundland)

| Type of Business                    | 1941         | 1944         | 1945         | 1946         | 1947         | 1948         | 1949         | 1950 <sup>P</sup> | P.C.<br>Change<br>1949-50 |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|---------------------------|
| Automotive equipment.....           | 157.8        | 197.2        | 242.8        | 334.0        | 369.8        | 379.9        | 397.6        | 420.7             | +5.8                      |
| Drugs.....                          | 145.2        | 201.9        | 222.1        | 245.2        | 254.6        | 281.8        | 305.5        | 306.4             | +0.3                      |
| Clothing.....                       | 142.8        | 183.1        | 186.3        | 229.3        | 255.4        | 265.1        | 248.2        | 235.5             | -5.1                      |
| Footwear.....                       | 141.6        | 188.8        | 224.0        | 279.4        | 300.8        | 286.8        | 281.9        | 268.1             | -4.9                      |
| Dry goods.....                      | 141.8        | 165.9        | 161.9        | 197.5        | 244.5        | 264.7        | 240.4        | 232.9             | -3.1                      |
| Fruits and vegetables.....          | 131.2        | 222.0        | 262.4        | 291.2        | 274.7        | 237.2        | 263.0        | 276.9             | +5.3                      |
| Groceries.....                      | 134.7        | 169.3        | 180.2        | 208.9        | 244.2        | 254.0        | 257.0        | 278.1             | +8.2                      |
| Hardware.....                       | 165.2        | 183.8        | 212.0        | 277.4        | 325.0        | 359.7        | 374.9        | 385.4             | +2.8                      |
| Tobacco and confectionery.....      | 150.6        | 230.1        | 258.1        | 296.9        | 317.1        | 354.8        | 372.8        | 386.6             | +3.7                      |
| <b>Totals, Wholesale Trade.....</b> | <b>142.0</b> | <b>186.0</b> | <b>205.4</b> | <b>244.0</b> | <b>272.0</b> | <b>283.2</b> | <b>291.3</b> | <b>304.1</b>      | <b>+4.4</b>               |



*Egg-grading machines at the Saskatchewan Co-operative Creamery automatically check the weight of each egg and grade it.*

## Co-operative Associations

During 1949 co-operative associations in Canada (including Newfoundland) conducted over \$1,000,000,000 worth of business, the increase over 1948 amounting to more than \$200,000,000. In addition, approximately \$167,000,000 worth of business was reported by marketing associations and \$34,000,000 by purchasing societies. More associations than ever before reported for 1949 and all reported increases in number. Total membership showed an increase of 60,668 over 1948.

During 1949 two of Canada's great western wheat pools celebrated their twenty-fifth anniversaries. The other provincial wheat pool (Alberta) celebrated that anniversary in 1948. These pools are Canada's largest co-operative marketing associations and now handle 35 p.c. of the annual grain crop of the Western Provinces. They have over 184,000 members and the crop is handled in 1,893 elevators at country points which altogether have a capacity of over 30,000,000 bu. In their years of service to Canadian farmers they have returned to the growers as patronage refunds over \$26,000,000. The members have an equity in the assets of almost \$37,000,000.

Eight of the ten provinces have officials responsible for administering co-operative legislation and supervising co-operative activities. In recent years provincial staffs and services to co-operatives have been expanded and during 1949 the Manitoba Department of Agriculture appointed a Director of Co-operative Services which will include the offices of the registrar



of co-operatives and the supervisor of credit unions. Newfoundland announced the creation of a department of government concerned with fisheries and co-operatives.

**Co-operative Marketing.**—For the crop year ended July 31, 1949, the sales value of farm products marketed by co-operatives in Canada amounted to \$783,293,225, an increase of \$166,945,748 over the total for 1947-48. Co-operative marketing associations in Canada handled an estimated 32.9 p.c. of the main farm products entering the commercial markets. By commodities, the percentages were as follows: dairy products, 25.5; live stock, 18.6; poultry and eggs, 18.4; wool, 79.7; grains, 55.1; and fruits and vegetables, 27.5.

**Co-operative Purchasing.**—Total sales value of purchases made by co-operative associations on behalf of members amounted to \$191,804,630 during 1949. These purchases were mainly farm supplies and equipment such as feed, fertilizer, farm machinery and petroleum products, although other consumer items such as coal, wood, clothing, home furnishings and groceries also enter into the total.

**Co-operative Wholesaling.**—Eleven co-operative wholesale houses with 24 places of business served 1,829 local co-operatives during 1949. These wholesales were engaged in marketing farm products on behalf of local co-operatives as well as providing them with farm supplies and household necessities in wholesale lots. Total sales of farm products through wholesales amounted to \$63,282,375 in 1949, most of which was live stock and dairy products. Total wholesale sales of merchandise in 1949 amounted to \$50,142,277. Main items handled were feed, fertilizer, petroleum products and food products.

**Co-operative Services.**—Service co-operatives, which provide housing, food and lodging, electric power, prepaid hospital care, transportation, cold storage, etc., are growing in number in each province. Membership in 156

A Nova Scotia fisherman delivers his catch to the manager of the co-operative.





co-operatives of this type during 1949 amounted to 58,714 and total revenue from services rendered was \$2,500,000.

**Fishermen's Co-operatives.**—Over 100 co-operatives of fishermen were in operation in 1949 and a volume of business amounting to \$16,700,000 on behalf of 16,300 members was reported. This included the sales value of fish marketed and the value of fishing supplies and consumer goods purchased for members. The largest number of fishermen's co-operatives was reported from the Maritimes, Quebec and Newfoundland, but the greatest volume of business was done by the seven fishermen's co-operatives in British Columbia.

The first inland fishermen's co-operative was organized on the Great Lakes in February, 1949.

**Credit Unions.**—During 1949 there were 2,819 credit unions in Canada with a membership of 940,427 and total assets of \$282,242,278. These co-operative credit institutions did a loan business in 1949 of \$99,537,166 and since their inception in 1900 have loaned over \$660,000,000 to their members for provident and productive purposes.

### *Wholesale Prices*

The general wholesale index is a measurement of commodity price change mainly at the production and primary distribution levels of the Canadian economy. It includes over 500 price series which are not restricted to the wholesale level in the literal sense. The great majority represent commodities at terminal markets or processing plants. Items priced are for the most part either in the raw or semi-manufactured stage. Continuity in the pricing of finished goods presents formidable difficulties, although a considerable number of these are included. Commodity weights correspond to the base-year value importance of the various items marketed, whether they are imported or produced in Canada.

Users of wholesale price indexes are frequently concerned with special groups or classes of commodities. Wholesale price indexes, therefore, have been constructed for numerous groups following the chief component material, origin and purpose principles of classification. Field and animal farm products may be compared, or farm and industrial commodities, producer and consumer goods, etc., as well as prices of individual commodities. Such indexes may be obtained upon request.

December, 1948, marked an intermediate turning point in the post-war advance of the general wholesale index. For that month it stood at 159.6 after rising from 143.5 for December, 1947. However, prices declined gradually during 1949 to close the year at 156.9. Losses were confined mainly to fats and oils, cocoa, wood-pulp, base metals and organic chemicals. Increases occurred for bread and flour following removal of the flour subsidy.

In 1950 prices reversed their downward tendency and a gradual advance occurred during the first four months. Between April and September, 1950, the index rose substantially, moving from 160.1 to 173.6. Sharp deterioration in the international situation culminating finally in open warfare in Korea was reflected in substantial price increases for commodities imported

Samples of grain taken from every section of the freight car are made up into a single sample for inspection and analysis at the Grain Research Laboratories of the Board of Grain Commissioners.



from the Far East. In addition, continuance of the building boom lent support to further price increases in lumber and other components of that industry.

The index of Canadian farm product prices at wholesale followed the trend of wholesale prices generally until August, 1950. At that time a drop occurred from 154.2 in the previous month to 141.9. This was due principally to a reduction in the initial price paid to the primary producer for wheat; No. 1 Manitoba Northern changed from \$1.75 per bu. to \$1.40, basis in store Fort William-Port Arthur. Animal products, on the other hand, continued to advance during the period under review.

**Monthly Index Numbers of General Wholesale Prices and Wholesale Prices of Canadian Farm Products, 1949 and 1950**

(1926 = 100)

| Year and Month | General Wholesale Prices | Canadian Farm Products | Year and Month          | General Wholesale Prices | Canadian Farm Products |
|----------------|--------------------------|------------------------|-------------------------|--------------------------|------------------------|
| <b>1939</b>    |                          |                        |                         |                          |                        |
| August.....    | 72.3                     | 58.4                   | November.....           | 157.1                    | 148.4                  |
|                |                          |                        | December.....           | 156.9                    | 147.8                  |
| <b>1949</b>    |                          |                        | <b>1950<sup>p</sup></b> |                          |                        |
| January.....   | 159.3                    | 148.2                  | January.....            | 157.1                    | 146.8                  |
| February.....  | 158.1                    | 145.1                  | February.....           | 158.0                    | 147.9                  |
| March.....     | 157.6                    | 145.8                  | March.....              | 159.3                    | 150.2                  |
| April.....     | 157.5                    | 147.6                  | April.....              | 160.1                    | 151.2                  |
| May.....       | 156.4                    | 149.9                  | May.....                | 161.8                    | 152.9                  |
| June.....      | 156.3                    | 149.4                  | June.....               | 165.0                    | 154.9                  |
| July.....      | 156.6                    | 150.7                  | July.....               | 166.9                    | 156.9                  |
| August.....    | 155.4                    | 149.3                  | August.....             | 168.5                    | 141.9                  |
| September..... | 155.4                    | 149.0                  | September.....          | 173.6                    | 142.7                  |
| October.....   | 157.2                    | 148.4                  | October.....            | 172.6                    | 141.3                  |



*The famous Quebec Bridge, 1,800 ft. between piers and the longest cantilever structure of its kind in the world, spans the mighty St. Lawrence just above Quebec city. Over and under this bridge passes an endless procession of goods destined for Canadian and world markets.*

## Cost of Living

The Dominion Bureau of Statistics cost-of-living index measures the change in prices of goods and services purchased by typical Canadian urban wage-earner families. In terms of pre-war prices (1935-39=100), it records in percentage form the month-to-month changes in expenditure required to purchase a budget of goods and services based upon a 1938 study of actual expenditures of such families.

Price behaviour of consumer goods is of general interest and importance. Prices affect everyone in their daily living and, along with income, determine to a large extent both the quantity and quality of the things that people buy. The cost-of-living index is, therefore, of considerable significance to many individuals and organizations. Labour and management both use it extensively in wage negotiations and government officials also watch it closely.

Construction methodology and the data used in compiling the index have received wide publicity and details of construction may be obtained by writing to the Dominion Statistician. Basically, the index is compiled by multiplying constant quantities of goods and services (quantities purchased) by prices being charged to consumers on the first business day of each month.



The resultant values for each budget item are added together and total dollar amounts divided by the average 1935-39 total. These figures are then multiplied by 100 to express them in index number form. The following example, using only two commodities, illustrates the procedure:—

| Item        | Budget<br>Quantity<br>(Weekly) | 1935-39          |                 | January, 1950    |                 |
|-------------|--------------------------------|------------------|-----------------|------------------|-----------------|
|             |                                | Average<br>Price | Average<br>Cost | Average<br>Price | Average<br>Cost |
|             | lb.                            | cts.             | cts.            | cts.             | cts.            |
| Bread.....  | 12.1                           | 6.5              | 78.65           | 10.5             | 127.05          |
|             | qt.                            |                  |                 |                  |                 |
| Milk.....   | 10.5                           | 10.9             | 114.45          | 18.1             | 190.05          |
| TOTALS..... | ...                            | ...              | 193.10          | ...              | 317.10          |

The January, 1949, index for the above two commodities is therefore  $(317.10 \div 193.10) \times 100$  or 164.2.

The cost-of-living index continued upward in 1950. Following a gradual increase in the first half of the year, prices commenced to accelerate in the latter half. This movement coincided with the change in the international tempo, the outbreak of hostilities in Korea being reflected in sharp price increases for items of both domestic and imported origin. Rents rose considerably following the relaxing of price ceilings to allow landlords to advance rents by 18 p.c. for unheated accommodation and by 22 p.c. for heated. Other main groups were relatively stable.

The urban index for Canada rose from 161.5 for Dec. 1, 1949, to 171.1 for Dec. 1, 1950. Higher foods accounted for 60 p.c. of the total increase and rental advances for 25 p.c.

### Index Numbers of Living Costs, 1939-50, and by Months, 1950

(Av. 1935-39 = 100)

| Year and Month | Food  | Rent  | Fuel and<br>Light | Clothing | Home<br>Furnish-<br>ings and<br>Services | Miscel-<br>laneous | Total |
|----------------|-------|-------|-------------------|----------|--|--------------------|-------|
| 1939.....      | 100.6 | 103.8 | 101.2             | 100.7    | 101.4                                    | 101.4              | 101.5 |
| 1940.....      | 105.6 | 106.3 | 107.1             | 109.2    | 107.2                                    | 102.3              | 105.6 |
| 1941.....      | 116.1 | 109.4 | 110.3             | 116.1    | 113.8                                    | 105.1              | 111.7 |
| 1942.....      | 127.2 | 111.3 | 112.8             | 120.0    | 117.9                                    | 107.1              | 117.0 |
| 1943.....      | 130.7 | 111.5 | 112.9             | 120.5    | 118.0                                    | 108.0              | 118.4 |
| 1944.....      | 131.3 | 111.9 | 110.6             | 121.5    | 118.4                                    | 108.9              | 118.9 |
| 1945.....      | 133.0 | 112.1 | 107.0             | 122.1    | 119.0                                    | 109.4              | 119.5 |
| 1946.....      | 140.4 | 112.7 | 107.4             | 126.3    | 124.5                                    | 112.6              | 123.6 |
| 1947.....      | 159.5 | 116.7 | 115.9             | 143.9    | 141.6                                    | 117.0              | 135.5 |
| 1948.....      | 195.5 | 120.7 | 124.8             | 174.4    | 162.6                                    | 123.4              | 155.0 |
| 1949.....      | 203.0 | 123.0 | 131.1             | 183.1    | 167.6                                    | 128.8              | 160.8 |
| 1950.....      | 210.9 | 132.9 | 138.3             | 182.3    | 169.2                                    | 132.6              | 166.5 |
| 1950—          |       |       |                   |          |  |                    |       |
| January.....   | 199.4 | 125.0 | 135.6             | 183.3    | 167.0                                    | 131.6              | 161.0 |
| February.....  | 201.3 | 125.0 | 135.9             | 183.0    | 166.4                                    | 132.1              | 161.6 |
| March.....     | 204.0 | 132.7 | 136.3             | 181.4    | 166.3                                    | 132.1              | 163.7 |
| April.....     | 204.5 | 132.7 | 138.0             | 181.2    | 166.4                                    | 132.3              | 164.0 |
| May.....       | 204.6 | 132.7 | 137.5             | 180.8    | 166.4                                    | 132.3              | 164.0 |
| June.....      | 209.0 | 132.7 | 137.1             | 180.7    | 166.9                                    | 132.4              | 165.4 |
| July.....      | 214.3 | 134.9 | 137.7             | 180.7    | 166.9                                    | 132.5              | 167.5 |
| August.....    | 216.7 | 134.9 | 138.4             | 180.9    | 168.9                                    | 132.5              | 168.5 |
| September..... | 218.8 | 135.5 | 140.8             | 182.3    | 171.1                                    | 132.8              | 169.8 |
| October.....   | 220.1 | 135.5 | 141.0             | 183.5    | 172.7                                    | 133.3              | 170.7 |
| November.....  | 218.6 | 136.4 | 140.6             | 184.5    | 174.8                                    | 133.4              | 170.7 |
| December.....  | 218.8 | 136.4 | 140.7             | 184.9    | 176.4                                    | 134.1              | 171.1 |



## ★ Foreign Trade

Although many difficulties have hampered international trade throughout the post-war period, Canada's trade has maintained very high levels. The value of total exports in 1948 reached a peacetime record of \$3,100,000,000, and the 1949 value of \$3,000,000,000 was little short of this record. Imports, too, have reached and maintained record levels; in spite of the exchange conservation restrictions they have risen steadily from \$2,600,000,000 in 1947 to \$2,800,000,000 in 1949. Canada's total trade in 1949 reached a record dollar value of \$5,800,000,000.

To a considerable extent the high levels of trade prevailing in the post-war period reflect price increases. The average level of both export and import prices in 1949 was about 2.2 times greater than in 1938. Nevertheless, the *volume* of trade has also been considerably above the pre-war level, that of exports in 1949 being about 63 p.c. above the 1938 level, that of imports greater by about 83 p.c.

### Exports, Imports and Total Trade of Canada, 1939-50

(Millions of Dollars)

| Year                    | Exports          |                 |         | Imports | Total Trade | Balance of Trade |
|-------------------------|------------------|-----------------|---------|---------|-------------|------------------|
|                         | Domestic Produce | Foreign Produce | Total   |         |             |                  |
| 1939.....               | 924.9            | 11.0            | 935.9   | 751.1   | 1,687.0     | + 184.8          |
| 1940.....               | 1,178.9          | 14.3            | 1,193.2 | 1,082.0 | 2,275.2     | + 111.2          |
| 1941.....               | 1,621.0          | 19.5            | 1,640.5 | 1,448.8 | 3,089.3     | + 191.7          |
| 1942.....               | 2,363.8          | 21.7            | 2,385.5 | 1,644.2 | 4,029.7     | + 741.3          |
| 1943.....               | 2,971.5          | 29.8            | 3,001.3 | 1,735.1 | 4,736.4     | +1,266.2         |
| 1944.....               | 3,440.0          | 43.1            | 3,483.1 | 1,758.9 | 5,242.0     | +1,724.2         |
| 1945.....               | 3,218.3          | 49.1            | 3,267.4 | 1,585.8 | 4,853.2     | +1,681.6         |
| 1946.....               | 2,312.2          | 27.0            | 2,339.1 | 1,927.3 | 4,266.4     | + 411.9          |
| 1947.....               | 2,774.9          | 36.9            | 2,811.8 | 2,573.9 | 5,385.7     | + 237.9          |
| 1948.....               | 3,075.4          | 34.6            | 3,110.0 | 2,636.9 | 5,747.0     | + 473.1          |
| 1949.....               | 2,993.0          | 29.5            | 3,022.5 | 2,761.2 | 5,783.7     | + 261.2          |
| 1950 <sup>1</sup> ..... | 1,430.6          | 17.5            | 1,448.1 | 1,453.1 | 2,901.2     | - 4.9            |

<sup>1</sup> First six months only.

**Trade Trends in 1949.**—During the first half of 1949 the trend of both exports and imports was slowly downward, although in each case the values recorded for the first half of 1948 were surpassed. On the side of imports, these declines were due chiefly to the satisfaction of the greater part of Canada's reconversion demand for machinery, equipment and many raw materials needed for inventories, and to the reduction of the backlog demand for such consumer goods as textiles. On the side of exports probably the most important factor in this period was the recovery of Europe's production from wartime damage, although a poor catch of fish and the strike at the asbestos mines in Quebec were also important influences. The business readjustments then in progress in the United States also affected trade trends to some extent, although the results of these readjustments affected individual commodities such as lumber, wood-pulp and some base metals more than total exports during the first half year.





*Newsprint going aboard a freighter at Corner Brook, Nfld. Newsprint paper is Canada's leading export. In 1949, 4,789,000 tons were exported, 91 p.c. of which went to the United States.*

Towards midsummer, however, this latter factor became dominant. Although Canadian prosperity was sustained by such factors as a high level of capital investment, by equalization payments by the Wheat Board, and by a reduction of taxes and refunds of compulsory savings, total exports showed a decided contraction. During her business readjustments the United States sharply reduced imports from many overseas countries, and this reduction in their available dollar supplies sharply accentuated the already serious "dollar problem". The rapid deterioration of the exchange reserves of many countries caused many traders to lose confidence in the existing exchange rate structure and to be unwilling to transact business at existing rates. The crisis reached its peak in September; on Sept. 18 the United Kingdom devalued the pound by 30.5 p.c. relative to the United States dollar and the next day the value of the Canadian dollar was reduced by 9.1 p.c. relative to this same standard. Most of the Sterling Area and "soft currency" countries also devalued their currencies, while most South American republics, countries of the Russian trading area, Pakistan, Switzerland, Turkey and a few others maintained their currencies at the old par with the United States dollar.

## Summary Canadian Trade Totals, by Quarters, 1949 and 1950

(Millions of Dollars)

| Item                  | 1949          |                |               |                | 1950          |                |               |
|-----------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
|                       | First Quarter | Second Quarter | Third Quarter | Fourth Quarter | First Quarter | Second Quarter | Third Quarter |
| Domestic exports..... | 658.8         | 765.8          | 721.4         | 846.9          | 648.9         | 781.8          | 789.9         |
| Re-exports.....       | 6.3           | 7.5            | 7.2           | 8.5            | 8.1           | 9.3            | 10.2          |
| Imports.....          | 665.7         | 743.7          | 664.6         | 687.3          | 649.5         | 803.6          | 806.4         |
| Balance of trade..... | -0.6          | +29.6          | +64.0         | +168.2         | +7.5          | -12.5          | -6.3          |
| Total trade.....      | 1,330.9       | 1,516.9        | 1,393.1       | 1,542.7        | 1,306.5       | 1,594.7        | 1,606.5       |

**Results of Currency Readjustments.**—The currency revaluations greatly improved the trade environment. Transactions postponed in expectation of such a move now went forward. Overseas countries, which had been hampered in their efforts to sell in dollar markets by relatively high costs, now were in an improved competitive position, an important factor at a time when demand was approaching more normal levels. While the prices of most of Canada's leading exports to the United States remained almost unchanged in terms of United States dollars, nevertheless devaluation facilitated price concessions in the case of a few commodities—particularly some species of lumber, and wood-pulp—where this had been a factor retarding sales. At the same time an upward turn in business activity in the United States further stimulated Canadian exports to that country. But many overseas countries, especially those of Europe and the Sterling Area, were faced with higher Canadian prices which somewhat restricted their demand for Canadian goods.

The most notable change in Canadian trade after devaluation was an increase in the proportion of Canada's exports sold in United States markets. This trend has also been influenced by sustained prosperity in the United States and by overseas import restrictions. In 1948, the United States had taken almost 49 p.c. of Canada's exports, but in the middle quarters of 1949 this proportion had decreased to about 46 p.c. In the last quarter of 1949, aided by heavy seasonal sales of cattle, this proportion rose to 57 p.c. and in the early quarters of 1950 passed 63 p.c.

Canadian bacon at the London Dairy Show where other Canadian food-stuffs, such as apples, cheese, eggs, honey and poultry, were also exhibited.





At the same time Canadian sales, to the Sterling Area especially, were declining. In midsummer of 1949 the Sterling Area countries, faced by a serious deficit in their trade with the Dollar Area, resolved to reduce their dollar purchases by 25 p.c., and price incentives brought about by their devaluation with respect to the dollar reinforced this decision. The results were not immediately obvious, but by the last quarter of 1949 sales to Commonwealth countries had begun to fall, and in the first half of 1950 Commonwealth purchases of Canadian goods were 33 p.c. below those of 1949.

### *Percentage Share of the United States in Canadian Trade*

| Year and Quarter    | Domestic Exports |      | Imports    |      |
|---------------------|------------------|------|------------|------|
|                     | \$'000,000       | p.c. | \$'000,000 | p.c. |
| 1948.....           | 1,501.0          | 48.8 | 1,805.8    | 68.5 |
| 1949.....           | 1,503.5          | 50.2 | 1,951.9    | 70.7 |
| 1949—               |                  |      |            |      |
| First Quarter.....  | 345.2            | 52.4 | 482.6      | 72.5 |
| Second Quarter..... | 345.7            | 45.1 | 526.2      | 70.8 |
| Third Quarter.....  | 333.4            | 46.2 | 461.8      | 69.5 |
| Fourth Quarter..... | 479.2            | 56.6 | 481.3      | 70.0 |
| 1950—               |                  |      |            |      |
| First Quarter.....  | 414.0            | 63.8 | 458.5      | 70.6 |
| Second Quarter..... | 490.9            | 62.8 | 546.0      | 68.0 |
| Third Quarter.....  | 528.1            | 66.9 | 520.6      | 64.6 |

Trends in imports since the currency revaluations have been complementary. The steady post-war rise in Canada's imports from the United States has been sharply retarded, while imports from the Commonwealth



*Seed potatoes, grown in the upper St. John River valley, N.B., are examined by Department of Agriculture inspectors as they are loaded aboard a Cuba-bound ship in Saint John harbour.*



All food products coming into Canada are inspected by Federal Government inspectors at port of entry. Special attention is given to fruits from tropical countries.



and many overseas foreign countries have been stimulated. However these movements have been somewhat less marked than those of exports.

**Improved Bilateral Trade Balance.**—The result of these trends was that Canada's trade reached a better bilateral balance in the first half of 1950 than in previous post-war years. In the first half of 1949, Canada had sold 48 p.c. of her exports to the United States, but had drawn 72 p.c. of her imports from this source. Canada's adverse balance on this trade for that half-year had been \$308,000,000. In the first half of 1950 Canada sold 63 p.c. of her exports to the United States and drew 69 p.c. of her imports from that country. The adverse balance declined to \$88,000,000. Trade with the Commonwealth also approached a closer balance. In the first half of 1949, the Commonwealth had taken 35 p.c. of Canada's exports and supplied 18 p.c. of her imports, and had been faced with a \$251,000,000 deficit. In the first half of 1950 the Commonwealth took only 24 p.c. of Canada's exports and supplied 20 p.c. of her imports. The Commonwealth's deficit in trade with Canada declined to \$54,000,000. A better balance was also achieved in Canada's trade with members of the Organization for European Economic Co-operation (the western European powers) and with other foreign countries. The greater part of the reduction in these positive balances was, however, due to reduced Canadian exports to these areas.

## Percentage Share of Various Countries in Canadian Trade

| Country  | Domestic Exports |               |               | Imports       |               |               |
|--|------------------|---------------|---------------|---------------|---------------|---------------|
|  | 1949             |               | 1950          | 1949          |               | 1950          |
|  | Jan.-<br>June    | July-<br>Dec. | Jan.-<br>June | Jan.-<br>June | July-<br>Dec. | Jan.-<br>June |
|  | p.c.             | p.c.          | p.c.          | p.c.          | p.c.          | p.c.          |
| United States.....                                   | 48.5             | 51.8          | 63.3          | 71.6          | 69.8          | 69.1          |
| United Kingdom.....                                  | 23.6             | 23.6          | 16.5          | 11.6          | 10.7          | 12.9          |
| Other Commonwealth and<br>Ireland <sup>1</sup> ..... | 11.8             | 9.1           | 7.1           | 6.6           | 7.0           | 6.7           |
| O.E.E.C. countries <sup>1, 2</sup> .....             | 8.3              | 8.0           | 5.2           | 2.9           | 2.7           | 2.5           |
| Latin America.....                                   | 4.4              | 4.0           | 4.3           | 6.1           | 7.8           | 6.2           |
| Other foreign.....                                   | 3.7              | 3.9           | 4.1           | 1.3           | 2.1           | 2.6           |

<sup>1</sup>Trade with Ireland included in both groups. The sum of the percentages therefore exceeds 100.

<sup>2</sup>Includes Austria, Belgium and Luxembourg, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Netherlands, Norway, Portugal, Azores and Madeira, Sweden, Switzerland and Turkey.

**Trade Policy.**—During 1949 Canada continued to participate in negotiations directed at lowering world trade barriers. Canada took an active part at the Annecy Conference in mid-1949 at which several new members were admitted to the General Agreement on Tariffs and Trade negotiated at Geneva in the previous year, and both gave and received several valuable tariff concessions. Although no direct negotiations were carried on with the United States at this Conference, Canada benefited indirectly from several concessions gained by the countries seeking admission to the Agreement. Canada is also participating in the tariff discussions being conducted at Torquay, England, in the autumn of 1950.

Canada's improved exchange position in 1950, partly the result of the trade readjustments consequent on the September, 1949, currency revaluations as well as large capital inflows, has permitted substantial relaxations in the Emergency Exchange Conservation restrictions imposed in November, 1947, to protect Canada's reserves of United States dollars. The greater part of these controls had been removed by the end of the third quarter of 1950, and the remainder were removed on Jan. 2, 1951.

**Commodity Exports and Imports.**—The general forces outlined above had particularly noticeable effects on certain commodities in Canadian trade. Exports of forest products—particularly planks and boards, shingles, and wood-pulp—were noticeably affected by the contraction of demand in the United States during that country's business readjustments in 1949, but in 1950, aided by a record building boom in the United States, lumber exports reached a record high for the first six months and demand for wood-pulp and other wood products revived. Exports of asbestos were seriously restricted by a strike which curtailed production in the early part of 1949, but these recovered when production resumed. Bacon exports dropped sharply after 1948, but this has been due less to market difficulties than to record Canadian bacon consumption, which has left little for export. Sales of ships remained high in 1949, and there were heavy deliveries on contracts for locomotives, railway cars and aircraft, the first two to India and the Union of South Africa, the latter to the United Kingdom. Wheat exports





*The Canadian exhibit at the Milan International Trade Fair aroused much interest among Italian visitors and buyers from other lands. Displays, designed and prefabricated by the Canadian Government Exhibition Commission, at Ottawa, provide a better understanding of Canada and its wide range of activities at foreign trade fairs and other shows.*

were also exceptionally high in 1949, with large shipments going to India and the Union of South Africa, but these have eased in 1950.

The union of Newfoundland with Canada on Mar. 31, 1949, also affects the interpretation of 1949 and 1950 export statistics. The greater part of the increase in Canada's newsprint exports in 1949 was due to the inclusion of Newfoundland's exports of this commodity in Canadian statistics, and the increase in exports of iron ore, lead and zinc was also influenced to an important extent by the union. The year 1949 was not a good year for the fisheries; some catches were subnormal and marketing difficulties were encountered, especially with respect to salt fish. That the trade figures show increased exports of fishery products in 1949 rather than decreased exports is due solely to the inclusion of Newfoundland's large exports of fish in Canadian statistics since the date of union.

Imports in 1949 and 1950 have remained high, sustained by high economic activity in Canada. Some commodities showed declines: petroleum, due to increased production in western Canada; anthracite coal in 1949 due to a heavy carryover from 1948; bituminous coal in the autumn of 1949 due to the United States coal strike. But the majority of imported commodities have remained at a high level. Imports of farm machinery and tractors have been particularly high in recent years.



**Commodity Concentration of Trade.**—A small number of commodities formed a greater proportion of Canada's exports in 1949 than in 1948. The five leading export commodities for 1948 and 1949 were the same; in 1948 they formed 38 p.c. of total domestic exports; in 1949, 43 p.c. The ten leading commodities in 1948 included 51 p.c. of total domestic exports, the top ten for 1949 included 57 p.c. In the present state of the world economy such concentration is natural; dollar-short nations cannot afford to buy in Canada goods now obtainable from soft-currency sources, and have concentrated their Canadian buying on fewer commodities than might otherwise be the case. And to a considerable extent these are the same commodities purchased in volume by the United States.

There was a slight decrease in the commodity concentration of imports in 1949; in part this reflects the relaxation of the trade controls imposed late in 1947. These controls bore heavily on less essential imports—as they are relaxed, purchases of such commodities grow and tend to form a greater proportion of total imports.

### **Principal Domestic Exports, 1947-50**

NOTE.—Commodities arranged in order of importance in 1949.

| Commodity   | 1947             | 1948             | 1949 <sup>1</sup> | 1949 <sup>1</sup> |                  | 1950<br>Jan.-<br>June |
|---|------------------|------------------|-------------------|-------------------|------------------|-----------------------|
|   |                  |                  |                   | Jan.-<br>June     | July-<br>Dec.    |                       |
|   | \$'000           | \$'000           | \$'000            | \$'000            | \$'000           | \$'000                |
| Wheat.....  | 265,200          | 243,023          | 435,158           | 201,345           | 233,814          | 156,582               |
| Newsprint.....  | 342,293          | 383,123          | 433,882           | 200,677           | 233,205          | 235,464               |
| Wood-pulp.....  | 177,803          | 211,564          | 170,675           | 87,696            | 82,979           | 91,989                |
| Planks and boards.....                                  | 208,375          | 196,023          | 160,420           | 67,909            | 92,511           | 108,239               |
| Wheat flour.....  | 196,578          | 125,151          | 97,693            | 50,058            | 47,636           | 50,252                |
| Nickel.....   | 60,443           | 73,802           | 92,324            | 48,918            | 43,405           | 52,171                |
| Aluminum, primary and<br>semi-fabricated.....           | 56,614           | 92,737           | 91,032            | 41,579            | 49,453           | 52,776                |
| Farm implements and mach-<br>inery (except tractors)... | 42,238           | 73,760           | 84,127            | 53,060            | 31,067           | 47,448                |
| Copper, primary and semi-<br>fabricated.....            | 52,916           | 75,206           | 84,052            | 40,847            | 43,206           | 42,129                |
| Zinc, primary and semi-<br>fabricated.....              | 30,020           | 42,337           | 55,700            | 29,187            | 26,513           | 22,780                |
| Cattle, chiefly for slaughter.                          | 630              | 47,226           | 46,146            | 15,370            | 30,776           | 29,289                |
| Lead, primary and semi-<br>fabricated.....              | 30,700           | 34,322           | 41,886            | 22,004            | 19,882           | 12,390                |
| Ships sold.....   | 23,965           | 81,448           | 41,159            | 25,177            | 15,982           | 15,888                |
| Fertilizers, chemical.....                              | 34,386           | 36,374           | 39,385            | 22,442            | 16,943           | 21,536                |
| Automobiles, trucks and<br>parts.....                   | 91,639           | 55,086           | 38,808            | 17,754            | 21,054           | 19,313                |
| Asbestos, unmanufactured..                              | 32,291           | 41,399           | 36,934            | 9,273             | 27,660           | 29,031                |
| Fish, fresh and frozen.....                             | 29,533           | 35,263           | 34,752            | 13,750            | 21,002           | 18,365                |
| Whisky.....   | 22,983           | 26,957           | 32,703            | 15,983            | 16,720           | 17,078                |
| Machinery (non-farm).....                               | 41,022           | 40,539           | 31,840            | 16,972            | 14,868           | 11,334                |
| Pulpwood.....   | 34,529           | 43,573           | 31,317            | 14,697            | 16,620           | 13,260                |
| Beef and veal, fresh.....                               | 9,232            | 36,594           | 30,629            | 8,880             | 21,749           | 13,379                |
| Locomotives and parts.....                              | 15,672           | 8,792            | 28,112            | 8,324             | 19,788           | 8,476                 |
| Barley.....   | 1,211            | 26,947           | 25,472            | 5,766             | 19,705           | 7,791                 |
| Aircraft and parts.....                                 | 5,900            | 11,290           | 24,935            | 6,654             | 18,280           | 2,507                 |
| Bacon and hams.....                                     | 62,081           | 69,960           | 24,176            | 9,592             | 14,584           | 20,227                |
| Fish, preserved (except<br>canned).....                 | 12,309           | 14,864           | 23,712            | 8,064             | 15,648           | 14,104                |
| Fur skins, undressed.....                               | 28,036           | 23,262           | 22,533            | 13,626            | 8,907            | 13,040                |
| Railway cars, coaches and<br>parts.....                 | 3,368            | 6,593            | 21,945            | 10,342            | 11,603           | 2,851                 |
| Ferro-alloys.....                                       | 21,545           | 24,057           | 19,182            | 12,794            | 6,389            | 6,554                 |
| Oats.....   | 12,389           | 22,560           | 18,533            | 5,861             | 12,672           | 6,480                 |
| <b>Totals, above Commod-<br/>ities.....</b>             | <b>1,945,901</b> | <b>2,203,832</b> | <b>2,319,222</b>  | <b>1,084,601</b>  | <b>1,234,621</b> | <b>1,142,723</b>      |
| <b>Grand Totals, Domes-<br/>tic Exports.....</b>        | <b>2,774,902</b> | <b>3,075,438</b> | <b>2,992,961</b>  | <b>1,424,617</b>  | <b>1,568,344</b> | <b>1,430,624</b>      |

<sup>1</sup> Due to rounding, the 1949 value is not necessarily the sum of the 1949 half-year values.

## Principal Imports, 1947-50

NOTE.—Commodities arranged in order of importance in 1949.

| Commodity   | 1947             | 1948             | 1949 <sup>1</sup> | 1949 <sup>1</sup> |                  | 1950<br>Jan.-<br>June |
|---|------------------|------------------|-------------------|-------------------|------------------|-----------------------|
|   |                  |                  |                   | Jan.-<br>June     | July-<br>Dec.    |                       |
|   | \$'000           | \$'000           | \$'000            | \$'000            | \$'000           | \$'000                |
| Machinery (non-farm).....                               | 206,012          | 217,090          | 216,316           | 115,715           | 100,601          | 110,511               |
| Petroleum, crude.....                                   | 127,459          | 191,980          | 189,364           | 85,874            | 103,490          | 89,872                |
| Tractors and parts.....                                 | 69,443           | 88,670           | 118,506           | 62,297            | 56,209           | 68,022                |
| Automobile parts.....                                   | 98,432           | 101,261          | 117,748           | 60,223            | 57,526           | 75,731                |
| Rolling-mill products.....                              | 77,970           | 83,929           | 98,093            | 63,408            | 34,685           | 39,703                |
| Coal, bituminous.....                                   | 96,070           | 127,673          | 93,455            | 52,563            | 40,891           | 51,990                |
| Electrical apparatus, <i>n.o.p.</i>                     | 68,773           | 62,127           | 69,802            | 34,213            | 35,589           | 40,416                |
| Cotton, raw.....  | 58,678           | 55,546           | 65,676            | 32,972            | 32,704           | 35,174                |
| Sugar, raw.....   | 46,407           | 62,116           | 65,624            | 29,672            | 35,953           | 27,809                |
| Farm implements and mach-<br>inery (except tractors)... | 35,969           | 51,325           | 58,706            | 35,367            | 23,339           | 30,435                |
| Cotton piece goods.....                                 | 82,574           | 52,815           | 52,666            | 37,060            | 15,606           | 23,147                |
| Engines, internal combus-<br>tion.....                  | 37,589           | 43,031           | 45,610            | 25,281            | 20,329           | 23,767                |
| Coal, anthracite.....                                   | 40,803           | 56,292           | 45,598            | 18,585            | 27,013           | 23,630                |
| Gasoline, refined.....                                  | 25,522           | 46,462           | 45,256            | 15,749            | 29,507           | 12,755                |
| Wool piece goods.....                                   | 29,663           | 42,648           | 41,747            | 25,343            | 16,404           | 16,251                |
| Automobiles and buses.....                              | 57,499           | 21,428           | 38,970            | 16,923            | 22,048           | 37,125                |
| Tourist purchases.....                                  | 15,870           | 316              | 28,847            | 9,322             | 19,525           | 10,827                |
| Coffee, green.....                                      | 13,327           | 23,426           | 28,584            | 12,522            | 16,063           | 17,591                |
| Pipes, tubes and fittings                               | 13,464           | 18,598           | 28,145            | 16,576            | 11,569           | 17,273                |
| Nuts.....   | 22,050           | 31,027           | 23,187            | 11,540            | 11,647           | 12,946                |
| Grains.....   | 30,580           | 27,649           | 23,179            | 7,567             | 15,612           | 11,419                |
| Citrus fruits, fresh.....                               | 22,384           | 18,837           | 22,267            | 12,153            | 10,114           | 13,613                |
| Tea, black.....   | 20,229           | 17,521           | 21,126            | 11,182            | 9,944            | 15,556                |
| Scientific and educational<br>equipment.....            | 17,330           | 17,594           | 20,895            | 10,454            | 10,441           | 11,557                |
| Vegetable oils, inedible....                            | 23,037           | 18,866           | 20,550            | 9,728             | 10,823           | 13,501                |
| Paperboard, paper and<br>products.....                  | 23,027           | 17,213           | 20,068            | 10,015            | 10,054           | 10,973                |
| Wool, raw.....  | 16,985           | 23,636           | 18,849            | 10,813            | 8,036            | 11,621                |
| Wool noils, tops, waste....                             | 13,085           | 24,108           | 18,555            | 10,500            | 8,055            | 11,430                |
| Inorganic chemicals, <i>n.o.p.</i>                      | 13,834           | 18,481           | 18,534            | 9,448             | 9,086            | 10,563                |
| Vegetables, fresh.....                                  | 18,978           | 6,845            | 18,460            | 13,282            | 5,178            | 17,274                |
| <b>Totals, above Commod-<br/>ities.....</b>             | <b>1,423,043</b> | <b>1,568,510</b> | <b>1,674,383</b>  | <b>866,347</b>    | <b>808,041</b>   | <b>892,482</b>        |
| <b>Grand Totals, Imports</b>                            | <b>2,573,944</b> | <b>2,636,945</b> | <b>2,761,207</b>  | <b>1,409,377</b>  | <b>1,351,831</b> | <b>1,453,051</b>      |

<sup>1</sup>Due to rounding, the 1949 value is not necessarily the sum of the 1949 half-year values.

## Domestic Exports, by Leading Countries,<sup>1</sup> 1947-50

NOTE.—Countries arranged in order of importance in 1949.

| Rank in—       |      | Country                          | 1947                | 1948      | 1949      | 1949          |               | 1950<br>Jan.-<br>June |
|----------------|------|----------------------------------|---------------------|-----------|-----------|---------------|---------------|-----------------------|
|                |      |                                  |                     |           |           | Jan.-<br>June | July-<br>Dec. |                       |
| 1947           | 1948 |                                  | \$'000              | \$'000    | \$'000    | \$'000        | \$'000        | \$'000                |
| 1              | 1    | United States.....               | 1,034,226           | 1,500,987 | 1,503,459 | 690,860       | 812,599       | 904,949               |
| 2              | 2    | United Kingdom.....              | 751,198             | 686,914   | 704,956   | 335,604       | 369,352       | 235,917               |
| 4              | 4    | Union of South<br>Africa.....    | 66,674              | 83,248    | 77,713    | 40,667        | 37,046        | 22,863                |
| 8 <sup>2</sup> | 7    | India.....                       | 42,947 <sup>2</sup> | 33,698    | 72,551    | 41,637        | 30,914        | 14,629                |
| 7              | 8    | Belgium and Lux-<br>embourg..... | 52,749              | 33,035    | 56,525    | 20,283        | 36,242        | 20,233                |
| 3              | 3    | France.....                      | 81,058              | 92,963    | 36,004    | 22,816        | 13,188        | 9,745                 |
| 5              | 6    | Australia.....                   | 60,294              | 38,257    | 35,363    | 16,639        | 18,724        | 16,431                |
| 20             | 13   | Switzerland.....                 | 14,196              | 19,389    | 32,281    | 13,736        | 18,545        | 8,320                 |
| 22             | 16   | Venezuela.....                   | 12,989              | 16,935    | 27,689    | 10,982        | 16,707        | 12,585                |
| 36             | 19   | Germany.....                     | 6,690               | 13,214    | 23,451    | 17,493        | 5,958         | 3,411                 |
| 15             | 12   | Norway.....                      | 20,320              | 23,429    | 21,736    | 8,843         | 12,893        | 7,157                 |
| 8              | 33   | Pakistan.....                    | <sup>3</sup>        | 7,775     | 18,097    | 9,630         | 8,467         | 6,363                 |
| 13             | 11   | Brazil.....                      | 31,660              | 28,601    | 17,259    | 9,121         | 8,138         | 4,724                 |
| 23             | 18   | Mexico.....                      | 11,701              | 15,045    | 15,411    | 7,379         | 8,032         | 7,064                 |
| 9              | 14   | New Zealand.....                 | 37,386              | 18,375    | 14,489    | 6,529         | 7,960         | 4,839                 |
| 31             | 22   | Cuba.....                        | 7,502               | 10,987    | 14,391    | 6,525         | 7,866         | 7,881                 |

For footnotes, see end of table.

# Domestic Exports, by Leading Countries,<sup>1</sup> 1947-50—concluded

| Rank in—                            |      | Country                  | 1947      | 1948      | 1949      | 1949      |           | 1950      |
|-------------------------------------|------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1947                                | 1948 |                          |           |           |           | Jan.-June | July-Dec. | Jan.-June |
|                                     |      |                          | \$'000    | \$'000    | \$'000    | \$'000    | \$'000    | \$'000    |
| 4                                   | 4    | Turkey.....              | 2,229     | 2,012     | 14,121    | 2,904     | 11,217    | 1,534     |
| 25                                  | 24   | Philippine Islands       | 10,448    | 9,810     | 13,983    | 5,972     | 8,011     | 6,209     |
| 11                                  | 10   | China.....               | 34,984    | 29,128    | 13,801    | 8,021     | 5,780     | 1,517     |
| 6                                   | 5    | Netherlands.....         | 55,940    | 43,684    | 13,759    | 6,916     | 6,843     | 5,085     |
| 4                                   | 45   | Panama.....              | 1,882     | 4,123     | 13,632    | 10,054    | 3,578     | 3,881     |
| 29                                  | 42   | Israel.....              | 8,473     | 5,036     | 12,709    | 5,300     | 7,409     | 7,370     |
| 10                                  | 9    | Italy.....               | 35,688    | 32,379    | 12,567    | 5,891     | 6,676     | 4,847     |
| 14                                  | 15   | Trinidad and Tobago..... | 26,354    | 17,105    | 12,325    | 6,812     | 5,513     | 3,810     |
| 4                                   | 4    | Iran.....                | 946       | 684       | 11,987    | 1,330     | 10,657    | 585       |
| 37                                  | 29   | Hong Kong.....           | 6,398     | 8,256     | 10,099    | 4,139     | 5,960     | 3,764     |
| 17                                  | 27   | Ireland.....             | 17,598    | 9,257     | 9,052     | 3,986     | 5,066     | 6,222     |
| 16                                  | 20   | Jamaica.....             | 18,214    | 12,350    | 9,033     | 4,420     | 4,613     | 3,734     |
| 49                                  | 41   | Portugal.....            | 3,502     | 5,181     | 8,405     | 5,500     | 2,905     | 3,035     |
| 4                                   | 38   | Hawaii.....              | 3,299     | 5,867     | 8,311     | 3,371     | 4,940     | 2,848     |
| Totals, above Countries             |      |                          | 2,457,545 | 2,807,724 | 2,835,159 | 1,333,360 | 1,501,799 | 1,341,552 |
| Grand Totals, Domestic Exports..... |      |                          | 2,774,902 | 3,075,438 | 2,992,961 | 1,424,617 | 1,568,344 | 1,430,624 |

<sup>1</sup> Newfoundland excluded in all years.    <sup>2</sup> Includes Pakistan in 1947.    <sup>3</sup> Included with India in 1947.    <sup>4</sup> Lower than 50th.

## Imports, by Leading Countries,<sup>1</sup> 1947-50

NOTE.—Countries arranged in order of importance in 1949.

| Rank in—                |      | Country                     | 1947                | 1948      | 1949      | 1949      |           | 1950      |
|-------------------------|------|-----------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|
| 1947                    | 1948 |                             |                     |           |           | Jan.-June | July-Dec. | Jan.-June |
|                         |      |                             | \$'000              | \$'000    | \$'000    | \$'000    | \$'000    | \$'000    |
| 1                       | 1    | United States....           | 1,974,679           | 1,805,763 | 1,951,860 | 1,008,779 | 943,081   | 1,004,546 |
| 2                       | 2    | United Kingdom..            | 189,370             | 299,502   | 307,450   | 163,215   | 144,235   | 187,177   |
| 3                       | 3    | Venezuela.....              | 46,688              | 94,758    | 91,697    | 44,109    | 47,588    | 38,161    |
| 9                       | 5    | Australia.....              | 14,222              | 27,415    | 27,429    | 12,000    | 15,429    | 9,595     |
| 42                      | 4    | India.....                  | 42,250 <sup>2</sup> | 33,400    | 26,233    | 13,692    | 12,541    | 20,440    |
| 7                       | 6    | Mexico.....                 | 16,980              | 27,258    | 25,494    | 7,880     | 17,614    | 13,576    |
| 11                      | 11   | British Guiana...           | 12,358              | 15,380    | 22,355    | 7,252     | 15,103    | 7,117     |
| 10                      | 9    | Brazil.....                 | 13,888              | 20,559    | 21,163    | 9,203     | 11,960    | 11,405    |
| 15                      | 12   | Belgium and Luxembourg..... | 10,120              | 13,661    | 19,022    | 11,513    | 7,509     | 9,222     |
| 26                      | 18   | Jamaica.....                | 6,371               | 9,557     | 16,577    | 7,733     | 8,844     | 6,676     |
| 8                       | 8    | Federation of Malaya.....   | 16,908              | 21,878    | 16,187    | 10,545    | 5,642     | 9,450     |
| 27                      | 20   | Trinidad and Tobago.....    | 5,654               | 9,027     | 14,575    | 8,072     | 6,503     | 7,270     |
| 18                      | 13   | France.....                 | 8,755               | 12,648    | 13,309    | 6,509     | 6,800     | 5,323     |
| 17                      | 21   | Colombia.....               | 9,197               | 8,668     | 12,588    | 4,940     | 7,648     | 5,311     |
| 3                       | 3    | Arabia.....                 | a                   | a         | 12,127    | 4,050     | 8,077     | 11,779    |
| 13                      | 15   | Ceylon.....                 | 11,653              | 11,182    | 11,635    | 6,274     | 5,361     | 8,032     |
| 12                      | 24   | Switzerland.....            | 11,941              | 7,444     | 10,902    | 4,431     | 6,471     | 6,810     |
| 31                      | 26   | Italy.....                  | 3,872               | 6,981     | 9,048     | 4,576     | 4,472     | 3,918     |
| 14                      | 13   | New Zealand.....            | 10,831              | 11,603    | 8,910     | 5,599     | 3,311     | 4,622     |
| 30                      | 22   | Fiji.....                   | 4,178               | 8,275     | 7,997     | 3,629     | 4,368     | 4,861     |
| 4                       | 44   | Germany.....                | 498                 | 1,729     | 7,134     | 3,758     | 3,376     | 4,172     |
| 22                      | 28   | Barbados.....               | 7,776               | 6,387     | 7,080     | 2,342     | 4,738     | 3,915     |
| 24                      | 29   | Honduras.....               | 6,999               | 6,182     | 6,986     | 2,853     | 4,133     | 2,654     |
| 25                      | 16   | Gold Coast.....             | 6,493               | 9,751     | 6,709     | 4,317     | 2,392     | 3,346     |
| 33                      | 30   | Netherlands.....            | 3,530               | 5,831     | 6,688     | 3,659     | 3,029     | 2,863     |
| 5                       | 7    | Cuba.....                   | 23,751              | 22,606    | 6,562     | 3,450     | 3,112     | 1,944     |
| 32                      | 31   | Czechoslovakia...           | 3,645               | 4,809     | 6,401     | 4,258     | 2,143     | 3,123     |
| 23                      | 19   | British East Africa.....    | 7,683               | 9,543     | 6,094     | 1,684     | 4,410     | 5,920     |
| 16                      | 23   | Guatemala.....              | 9,488               | 8,209     | 5,743     | 2,253     | 3,490     | 2,472     |
| 4                       | 32   | Japan.....                  | 350                 | 3,144     | 5,551     | 1,831     | 3,720     | 4,988     |
| Totals, above Countries |      |                             | 2,480,128           | 2,523,150 | 2,691,506 | 1,374,406 | 1,317,100 | 1,410,688 |
| Grand Totals, Imports   |      |                             | 2,573,944           | 2,636,945 | 2,761,207 | 1,409,377 | 1,351,831 | 1,453,051 |

<sup>1</sup> Newfoundland excluded in all years.    <sup>2</sup> Includes Pakistan in 1947.    <sup>3</sup> Not separately distinguished before 1949.    <sup>4</sup> Lower than 50th.



## *Canadian Balance of International Payments*

International financial dislocations and foreign exchange problems have been a characteristic of recent years and have been world-wide in their extent and influence. International movements of commodities have been out of balance because of shortages and dislocations caused by the War, and because of the inability of nations deficient in exchange reserves to pay for imports. Thus the ability of many of Canada's customers overseas to pay for Canadian exports has been impaired by their post-war financial position. Normally Canada exports much more to these countries than she purchases and relies on the receipts of exchange to settle deficits in the United States. The impaired position of the overseas countries led to the need for special financial assistance from Canada to maintain trade in the early post-war period. Canada's ability to provide this assistance was directly affected by the size of her reserves of gold and United States dollars as Canada has customarily had a deficit from trade and other transactions with the United States.

In the early post-war years, Canadian demands for United States goods rose very rapidly and exports to the United States were limited by the range and quantity of commodities available for export to that country. More recently, however, with the falling off in exports to overseas countries, a sharp gain in exports to the United States served to reduce rapidly the current deficit with that country. At the same time some reduction has taken place in the volume of Canadian imports from the United States following the

*Luxury goods have been imported in increasing quantities from the United Kingdom since the end of the War. Imports of fine china tableware and figurines, such as this display in a Montreal store, were valued at about \$10,700,000 in 1950.*



original introduction of import restrictions, and affected also by increasing supplies of goods elsewhere and some satisfaction of accumulated demands.

Changes from year to year in Canada's international accounts have been very wide. Fluctuations in the size of the current account surplus with all countries have had a direct bearing on the over-all position when observed along with related capital movements like post-war loans to other governments.

The early post-war years 1946 and 1947 had certain features in common. In both years bilateral disequilibrium was very wide with so much of the exports to overseas countries being financed out of loans and contributions, combined with the large Canadian import balance and current deficit with the United States which were related to the heavy exports overseas and widespread Canadian prosperity. Thus while there was a large current balance in 1946 there was a loss of reserves as a large part of Canada's exports did not yield foreign exchange, being financed by loans and contributions. Net drawings on these were \$750,000,000 and \$563,000,000, respectively, in the two years.

The current account surplus with all countries was sharply reduced in 1947 by the great increase in the current deficit with the United States which almost doubled within the year as Canadian imports continued to expand. As there continued to be substantial drawings on the post-war loans, a large part of Canada's liquid reserves were used to meet the heavy deficit in that year with the United States which reached an all-time peak. Another development contributing to part of the loss of \$743,000,000 in official reserves in 1947 was the outflow of capital in connection with the redemption of Canadian securities abroad and the Canadian contribution to the International Monetary Fund. As a result of this rapid loss of reserves there was introduced in November, 1947, an emergency exchange conservation program. This took the form chiefly of prohibitions and restrictions on imports, and restrictions on other expenditures of United States dollars, together with some encouragement of the development of Canadian sources of United States dollars.

Great improvement occurred in Canada's position in 1948 due to a rapid decline in the current deficit with the United States to \$393,000,000 from \$1,135,000,000 in 1947 and to a sharp curtailment in exports to overseas countries financed by loans from the Canadian Government. Net drawings for this purpose were \$126,000,000. The current account surplus rose to \$452,000,000 influenced by the larger current receipts with heavy United States demands and the stimulus to exports from the removal of embargoes and controls on exports to the United States, combined with the restrictions on imports from the United States. Requirements of funds for other capital purposes were less in contrast to the heavy outflows in 1947 and, furthermore, adding to the reserves in 1948 was a new bond issue of the Canadian Government of \$150,000,000 sold in the United States. There was consequently a rapid rise in Canada's official reserves to \$496,000,000 in 1948.

The improvement in reserves which continued in 1949 was on a reduced scale as the current account surplus in that year was less than half the size of the surplus in 1948 and there were also outward movements of capital in contrast to net inflows in 1948. The decline in the current account surplus with all countries to \$180,000,000 was chiefly due to the fact that the current deficit with the United States again expanded rapidly, rising to \$594,000,000 from \$393,000,000 in 1948. This resulted from a rise in the value of all imports caused by price increases and some relaxation in import



*Canadian butter being removed from a refrigerated chamber of the National Harbour Board warehouse, Montreal, for shipment overseas.*



restrictions. While the value of exports to the United States remained comparatively high for the year as a whole, demand in the earlier part of the year was weakened by the business recession in the United States. At the same time there was an appreciable decline in the surplus on travel account with that country due to the rise in expenditures of Canadian travellers in the United States, and a rise in the deficit on income account with much heavier dividends being paid by Canadian companies. Other current Canadian payments to the United States were also heavier. Favourable trends occurred in the value of gold production and in net payments on freight and shipping account, but these had minor results compared with the above adverse trends.

During the later months of 1949 and continuing into 1950 commodity trade with both overseas countries and the United States came closer to balance. The change followed the general devaluation of currencies which took place in September, 1949, and was also influenced by increased restrictions on expenditures in Canada introduced by the United Kingdom and other overseas countries and by revival in United States demand. There was a contraction in the export balance and current surplus with the United Kingdom and other overseas countries at the same time as a decline occurred in the import balance and current deficit with the United States. This change in the balances with overseas countries was a combination of reduced exports and increased imports, mainly occurring in trade with the United Kingdom but in evidence in trade with the rest of the Sterling Area and with other foreign countries as well. With the United States the principal alteration was the growth in exports which sharply reduced the import balance with that country





*Inner Harbour, Victoria, B.C.*

as the value of imports did not change greatly. However, this growth in exports to the United States was about the same size as the total decline in exports to overseas countries and, since the value of imports from all countries increased somewhat more than the rise in exports, there was a slight deficit on total commodity account in the first seven months of 1950.

Other changes contributing to the disappearance of the current account surplus in 1950 were further contractions in net receipts on travel account and on freight and shipping account and increased payments of dividends by Canadian companies to parent companies and other shareholders abroad. In spite of this, there was a sharp increase in the level of official reserves. The official holdings of gold and U.S. dollars by the end of September had risen to \$1,789,600,000 from \$1,117,100,000 at the end of December, 1949. Capital inflow reached an unprecedented level in the late summer months. In the month of September alone, when the movement had reached its peak before the adoption by Canada of a floating exchange rate, net sales of Government of Canada bonds to the United States amounted to \$121,500,000, an amount larger than even the annual sales in earlier periods of heavy capital inflow. Other forms of capital inflow were also large including a maintenance of substantial inflows for direct investment. At the same time, redemptions of Canadian securities held outside of Canada were comparatively small, apart from some issues refinanced in the United States.

### *Tourist Trade*

The trade which Canada has from visits by United States tourists and other travellers is an important source of prosperity and of foreign exchange. In recent years this trade has been at exceptionally high levels but some tendency for the volume to level off has appeared in 1949 and 1950.

Expenditures of non-resident travellers in Canada during the first half of 1950 were lower than in the first half of 1949. The drop was not large, being less than 10 p.c., but it contrasted with an unbroken advance during each of the preceding seven years from a wartime low in 1942 to a figure three and a half times as large in 1949. During this period the gain from year to year reached a peak in 1946 with the end of wartime restrictions on travel. Succeeding years brought greater expenditures but at a reduced rate of gain, until in 1949 the total was only 2 p.c. more than in 1948. Although total travel expenditures in 1949 were larger than in 1948, expenditures of travellers from the United States commenced to fall in the second half of 1949. This was due largely to lower volume of non-automobile traffic throughout the six-month period, coupled with shorter visits during October, November and December. Shorter visits by motorists throughout the year also had an important effect upon receipts.

An analysis of traffic from the United States during the first half of 1950 shows that more motorists entered Canada on customs permits than ever before, in particular motorists destined for the Maritime Provinces. But the increase in volume during the first six months was only 19,000 vehicles as against a gain of 69,000 in the same period of 1949. Moreover, these motorists stayed for shorter visits than those who came the year before and their expenditures were thus slightly less. Fewer and shorter visits by train passengers during the first half year produced expenditures 23 p.c. lower than in the same period of 1949. The drop in expenditures of train-travelling visitors is merely an extension of the trend that has been apparent for the past five years. Train traffic reached a peak in 1944 as a result of restricted automobile traffic during the War, and has since diminished year by year.

The balance of payments on travel account reached an all-time high of \$145,000,000 in 1948, largely as a result of official restrictions on the expenditures of Canadians in United States currency introduced in November, 1947. Those restrictions were relaxed in January, 1949, and consequently during the following year expenditures by Canadians were heavier while receipts from United States travellers remained about the same. Thus the balance between



*Two sisters at work in a Montreal pottery shop which specializes in originals with Canadian motifs.*



credits and debits was cut during 1949 to \$94,000,000. In 1950 the balance was further reduced by the combined effect of smaller credits and larger debits. During the first six months Canadian travel expenditures rose by more than 10 p.c. in the United States and by more than 20 p.c. in overseas countries, while receipts declined.

During 1950 expenditures of Canadian travellers outside of Canada approximated an unprecedented 81 p.c. of expenditures of non-resident travellers in Canada. Thus eighty-one cents of every dollar brought into Canada by foreign travellers was taken out of the country by Canadian travellers. Never before during the 24 years for which figures are available have debits on travel account been so large in proportion to credits. The corresponding ratio for the pre-war period of 14 years ended in 1939 was 54 p.c. and for the war years was 40 p.c. An important item in expenditures of Canadian travellers in other countries in 1949 and 1950 was the purchase of commodities imported under the \$100 customs exemption. Purchases in the United States alone under this exemption during the first half of 1949 amounted to 13 p.c. of total expenditures in that country and increased during the first half of 1950 to 14 p.c.

Overseas travel in the first half of 1950 resulted in a decrease in the number of visitors to Canada and an increase in the number of Canadians who visited foreign countries. Consequently expenditures showed a larger debit balance than in the corresponding period of 1949.

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*The Alaska Highway, built by the United States in 1942 as a military project through the virgin territory of northern British Columbia, Yukon and Alaska, was turned over to the Canadian authorities in 1946 and later opened for civilian traffic. It is now becoming a popular tourist route.*







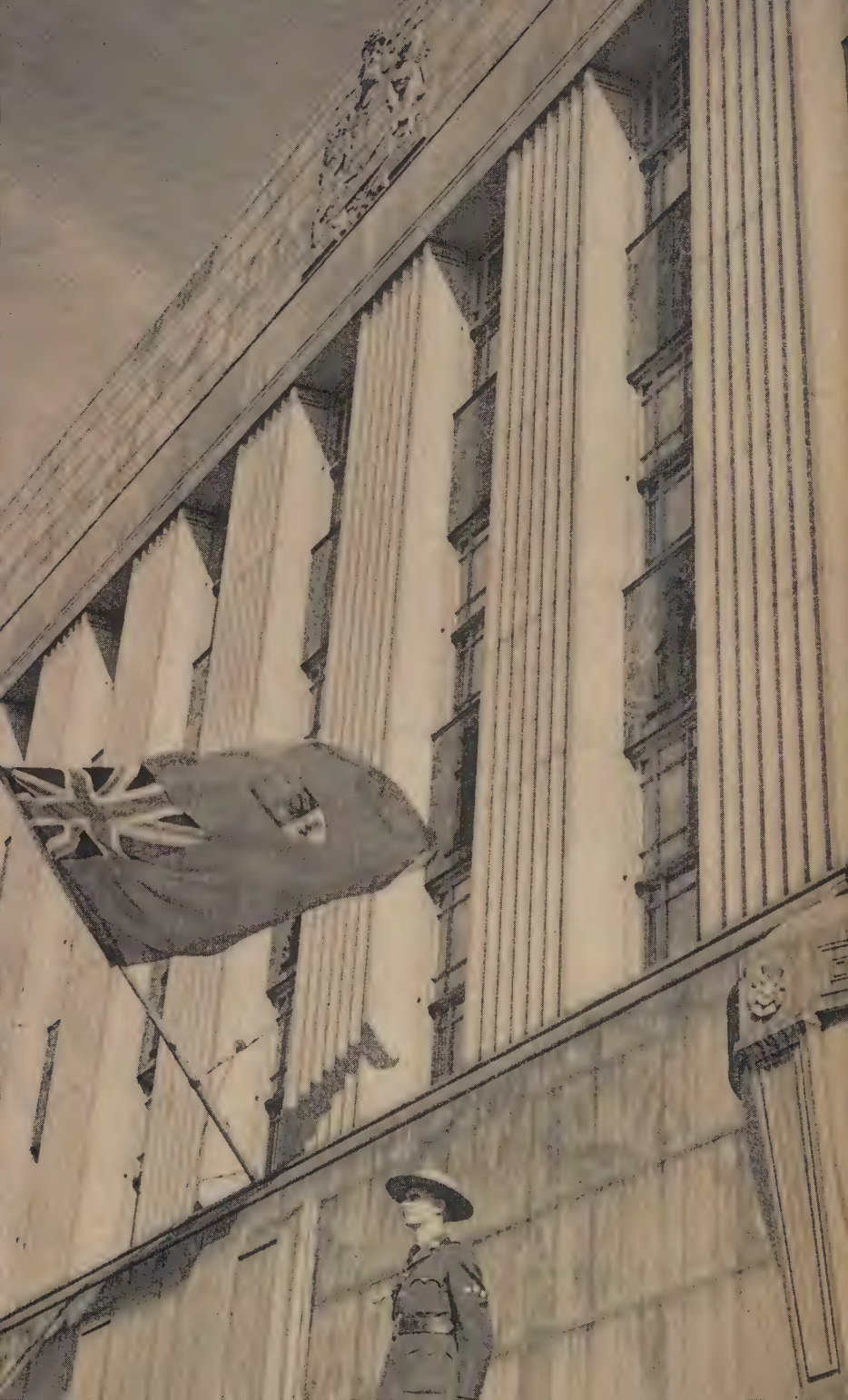
*Baddeck Bay, part of the beautiful salt-water Bras d'Or Lakes in the interior of Cape Breton Island, N.S.*

The balance of payments on travel account between Canada and all countries for the years 1940-49 is given in the following statement.

| <u>Year</u> | <u>Credits</u>        | <u>Debits</u> | <u>Net</u> | <u>Year</u> | <u>Credits</u>        | <u>Debits</u> | <u>Net</u> |
|-------------|-----------------------|---------------|------------|-------------|-----------------------|---------------|------------|
|             | (Millions of Dollars) |               |            |             | (Millions of Dollars) |               |            |
| 1940.....   | 105                   | 43            | +62        | 1945.....   | 166                   | 83            | + 83       |
| 1941.....   | 111                   | 21            | +90        | 1946.....   | 222                   | 136           | + 86       |
| 1942.....   | 82                    | 27            | +55        | 1947.....   | 251                   | 167           | + 84       |
| 1943.....   | 89                    | 37            | +52        | 1948.....   | 280                   | 135           | +145       |
| 1944.....   | 120                   | 60            | +60        | 1949.....   | 286                   | 192           | + 94       |

An analysis of expenditures of travellers between Canada and the United States, classified by means of travel, illustrates the rapid growth that occurred in travel between these countries from 1944 to 1949.

| <u>Means of Travel</u>                             | <u>1944</u> | <u>1945</u> | <u>1946</u> | <u>1947</u> | <u>1948</u> | <u>1949</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| (Millions of Canadian Dollars)                     |             |             |             |             |             |             |
| EXPENDITURES IN CANADA OF<br>TRAVELLERS FROM U.S.— |             |             |             |             |             |             |
| Automobile.....                                    | 24.4        | 56.9        | 98.0        | 118.4       | 139.4       | 144.9       |
| Rail.....  | 67.2        | 64.3        | 61.4        | 56.6        | 55.9        | 52.8        |
| Boat.....  | 7.9         | 13.0        | 17.3        | 22.1        | 16.0        | 15.3        |
| Through bus.....                                   | 6.3         | 12.9        | 15.8        | 16.7        | 20.8        | 24.4        |
| Aircraft.....                                      | 3.2         | 5.6         | 10.3        | 13.1        | 12.1        | 17.6        |
| Other (pedestrians, local bus, etc.)..             | 7.5         | 10.6        | 13.3        | 14.2        | 23.2        | 13.5        |
| TOTALS.....  | 116.6       | 163.3       | 216.1       | 241.1       | 267.4       | 268.5       |
| EXPENDITURES IN U.S. OF<br>TRAVELLERS FROM CANADA— |             |             |             |             |             |             |
| Automobile.....                                    | 3.8         | 7.5         | 21.7        | 32.6        | 25.1        | 52.9        |
| Rail.....  | 33.1        | 39.4        | 49.6        | 52.2        | 35.9        | 46.1        |
| Boat.....  | 1.1         | 1.8         | 3.2         | 4.1         | 3.1         | 3.9         |
| Through bus.....                                   | 8.7         | 17.0        | 28.5        | 34.6        | 25.5        | 33.1        |
| Aircraft.....                                      | 2.4         | 4.1         | 8.8         | 9.0         | 7.3         | 9.7         |
| Other (pedestrians, local bus, etc.)..             | 7.9         | 11.0        | 18.1        | 19.8        | 16.3        | 18.5        |
| TOTALS.....  | 57.1        | 80.9        | 129.9       | 152.3       | 113.2       | 164.2       |



# Finance

## ★ Public Finance

THIS section presents public finance statistics for all levels of government in Canada—federal, provincial and municipal. It should be noted that, under the first heading, the revenue and expenditure tables exclude inter-governmental transfers, subsidies, and payments from the Federal Government to the provinces under the Dominion-Provincial Taxation Agreement Act. In addition, the revenues and expenditures are shown on a “net” basis, viz., shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue being treated as offsets to corresponding expenditures. Other main headings deal in more detail with the salient aspects of federal, provincial and municipal finance.

### *Combined Statistics for All Governments*

**Combined Revenues and Expenditures.**—Combined revenues of all governments amounted to \$3,610,369,000 in 1947, an increase of \$99,119,000 over the previous year, whereas expenditures declined by \$261,087,000. It is interesting to note that revenues have increased each year since 1944 and expenditures have decreased steadily since 1943. The following statement is a comparison of the indexes of change in gross national product, and total revenues and expenditures, using 1939 as the base year.

| <i>Year</i> | <i>Gross<br/>National<br/>Product</i> | <i>Total<br/>Revenues</i> | <i>Total<br/>Expendi-<br/>tures</i> |
|-------------|---------------------------------------|---------------------------|-------------------------------------|
| 1939.....   | 100                                   | 100                       | 100                                 |
| 1941.....   | 151                                   | 196                       | 189                                 |
| 1942.....   | 188                                   | 261                       | 381                                 |
| 1943.....   | 202                                   | 301                       | 448                                 |
| 1944.....   | 213                                   | 292                       | 444                                 |
| 1945.....   | 210                                   | 326                       | 435                                 |
| 1946.....   | 213                                   | 340                       | 252                                 |
| 1947.....   | 243                                   | 349                       | 230                                 |

Before the War, the revenues and expenditures of provincial and municipal governments together exceeded those of the Federal Government. In 1939, federal revenues accounted for only 46 p.c. of the combined total, while in 1947 they represented 74 p.c. of the total; federal expenditures correspondingly changed from 46 p.c. of the total for 1939 to 62 p.c. of the total for 1947. This is accounted for by the fact that the burden of financing Canada's war effort fell upon the Federal Government. At the same time,



the aim of the Federal Government was to finance as large a part as possible of the cost of carrying on a total war effort out of current revenues.

The period from 1939 to 1947 also brought about a change in the relative weights of various federal revenues. In the year 1939, the greatest single source of revenue was the general sales tax (\$137,446,000), followed by customs duties and other import taxes (\$106,819,000), and corporate income taxes (\$77,920,000). However, in the year 1947 personal income tax was the greatest source of revenue (\$659,828,000), followed by corporate income taxes (\$591,161,000), general sales tax (\$372,329,000), and customs duties and other import taxes (\$295,737,000).

### **Comparative Federal, Provincial and Municipal Revenues, Selected Years, 1933-47**

NOTE.—Figures are for fiscal years ended nearest to Dec. 31. Inter-governmental transfers, subsidies and payments under the Dominion-Provincial Taxation Agreement Act are excluded. SOURCE: Comparative statistics of Public Finance prepared for the Dominion-Provincial Conference on Reconstruction.

| Year                       | Federal   | Provincial and Municipal |           |         | Total     |
|----------------------------|-----------|--------------------------|-----------|---------|-----------|
|                            |           | Provincial               | Municipal | Total   |           |
| Revenues                   |           |                          |           |         |           |
|                            | \$'000    | \$'000                   | \$'000    | \$'000  | \$'000    |
| 1933.....                  | 278,181   | 133,252                  | 294,068   | 427,320 | 705,501   |
| 1937.....                  | 460,544   | 221,397                  | 304,161   | 525,558 | 986,102   |
| 1939.....                  | 480,027   | 236,223                  | 316,964   | 553,187 | 1,033,214 |
| 1941.....                  | 1,389,433 | 301,842                  | 331,206   | 633,048 | 2,022,481 |
| 1942.....                  | 2,125,745 | 240,098                  | 330,748   | 570,846 | 2,696,591 |
| 1943.....                  | 2,522,414 | 250,646                  | 340,690   | 591,336 | 3,113,750 |
| 1944.....                  | 2,402,447 | 262,269                  | 351,148   | 613,417 | 3,015,864 |
| 1945.....                  | 2,694,116 | 316,621                  | 353,158   | 669,779 | 3,363,895 |
| 1946.....                  | 2,738,515 | 397,258                  | 375,477   | 772,735 | 3,511,250 |
| 1947.....                  | 2,663,310 | 533,677                  | 413,382   | 947,059 | 3,610,369 |
| Percentage Distribution    |           |                          |           |         |           |
| 1933.....                  | 39.4      | 18.9                     | 41.7      | 60.6    | 100.0     |
| 1937.....                  | 46.7      | 22.5                     | 30.8      | 53.3    | 100.0     |
| 1939.....                  | 46.5      | 22.8                     | 30.7      | 53.5    | 100.0     |
| 1941.....                  | 68.7      | 14.9                     | 16.4      | 31.3    | 100.0     |
| 1942.....                  | 78.8      | 8.9                      | 12.3      | 21.2    | 100.0     |
| 1943.....                  | 81.0      | 8.1                      | 10.9      | 19.0    | 100.0     |
| 1944.....                  | 79.7      | 8.7                      | 11.6      | 20.3    | 100.0     |
| 1945.....                  | 80.1      | 9.4                      | 10.5      | 19.9    | 100.0     |
| 1946.....                  | 78.0      | 11.3                     | 10.7      | 22.0    | 100.0     |
| 1947.....                  | 73.8      | 14.8                     | 11.4      | 26.2    | 100.0     |
| Index of Change (1939=100) |           |                          |           |         |           |
| 1933.....                  | 57.9      | 56.4                     | 92.7      | 77.2    | 68.2      |
| 1937.....                  | 95.9      | 93.7                     | 95.9      | 95.0    | 93.6      |
| 1939.....                  | 100.0     | 100.0                    | 100.0     | 100.0   | 100.0     |
| 1941.....                  | 289.4     | 127.7                    | 104.5     | 114.4   | 195.7     |
| 1942.....                  | 442.8     | 101.6                    | 104.3     | 103.1   | 260.9     |
| 1943.....                  | 525.4     | 106.1                    | 107.4     | 106.8   | 301.3     |
| 1944.....                  | 500.5     | 111.0                    | 110.8     | 110.9   | 291.9     |
| 1945.....                  | 561.2     | 134.0                    | 111.4     | 121.1   | 326.0     |
| 1946.....                  | 570.5     | 168.2                    | 118.5     | 139.7   | 339.8     |
| 1947.....                  | 554.8     | 225.9                    | 130.4     | 171.2   | 349.4     |

# Comparative Federal, Provincial and Municipal Expenditures (Capital and Current), Selected Years, 1933-47

NOTE.—See headnote to preceding table.

| Year      | Federal                 | Provincial and Municipal |           |           | Total     |
|-----------|-------------------------|--------------------------|-----------|-----------|-----------|
|           |                         | Provincial               | Municipal | Total     |           |
|           | Expenditures            |                          |           |           |           |
|           | \$'000                  | \$'000                   | \$'000    | \$'000    | \$'000    |
| 1933..... | 389,587                 | 218,864                  | 301,770   | 520,634   | 910,221   |
| 1937..... | 444,599                 | 359,689                  | 296,288   | 655,977   | 1,100,576 |
| 1939..... | 571,198                 | 354,883                  | 304,580   | 659,463   | 1,230,661 |
| 1941..... | 1,718,787               | 311,260                  | 292,517   | 603,777   | 2,322,564 |
| 1942..... | 4,102,441               | 293,637                  | 295,128   | 588,765   | 4,691,206 |
| 1943..... | 4,907,475               | 300,997                  | 300,579   | 601,576   | 5,509,051 |
| 1944..... | 4,803,049               | 339,531                  | 316,825   | 656,356   | 5,459,405 |
| 1945..... | 4,652,738               | 370,875                  | 334,135   | 705,010   | 5,357,748 |
| 1946..... | 2,229,674               | 476,734                  | 390,658   | 867,392   | 3,097,066 |
| 1947..... | 1,762,472               | 626,064                  | 447,443   | 1,073,507 | 2,835,979 |
|           | Percentage Distribution |                          |           |           |           |
|           |                         |                          |           |           |           |
| 1933..... | 42.8                    | 24.1                     | 33.1      | 57.2      | 100.0     |
| 1937..... | 40.4                    | 32.7                     | 26.9      | 59.6      | 100.0     |
| 1939..... | 46.4                    | 28.8                     | 24.8      | 53.6      | 100.0     |
| 1941..... | 74.0                    | 13.4                     | 12.6      | 26.0      | 100.0     |
| 1942..... | 87.4                    | 6.3                      | 6.3       | 12.6      | 100.0     |
| 1943..... | 89.1                    | 5.5                      | 5.4       | 10.9      | 100.0     |
| 1944..... | 88.0                    | 6.2                      | 5.8       | 12.0      | 100.0     |
| 1945..... | 86.9                    | 6.9                      | 6.2       | 13.1      | 100.0     |
| 1946..... | 72.0                    | 15.4                     | 12.6      | 28.0      | 100.0     |
| 1947..... | 62.1                    | 22.1                     | 15.8      | 37.9      | 100.0     |



Publicity material for Canada Savings Bonds ready for shipment to distributing centres.

**Comparative Federal, Provincial and Municipal Expenditures (Capital and Current), Selected Years, 1933-47—concluded**

| Year      | Federal                    | Provincial and Municipal |           |       | Total |
|-----------|----------------------------|--------------------------|-----------|-------|-------|
|           |                            | Provincial               | Municipal | Total |       |
|           | Index of Change (1939=100) |                          |           |       |       |
| 1933..... | 68.2                       | 61.7                     | 99.1      | 78.9  | 74.0  |
| 1937..... | 77.8                       | 101.4                    | 97.3      | 99.5  | 89.4  |
| 1939..... | 100.0                      | 100.0                    | 100.0     | 100.0 | 100.0 |
| 1941..... | 300.9                      | 87.7                     | 96.0      | 91.6  | 188.7 |
| 1942..... | 718.2                      | 82.7                     | 96.9      | 89.3  | 381.2 |
| 1943..... | 859.2                      | 84.8                     | 98.7      | 91.2  | 447.6 |
| 1944..... | 840.9                      | 95.7                     | 104.0     | 99.5  | 443.6 |
| 1945..... | 815.0                      | 104.5                    | 109.7     | 106.9 | 435.4 |
| 1946..... | 390.3                      | 134.3                    | 128.3     | 131.5 | 251.6 |
| 1947..... | 308.6                      | 176.4                    | 146.7     | 162.8 | 230.4 |

**Combined Debt.**—The combined total of direct and indirect debt (exclusive of inter-governmental debt) of all governments in Canada amounted to \$21,458,000,000 at the close of their fiscal years ended nearest to Dec. 31, 1948.

**Combined Federal, Provincial and Municipal Direct and Indirect Debt, 1944-48**

NOTE.—Figures are for fiscal years ended nearest to Dec. 31.

| Item   | 1944              | 1945              | 1946              | 1947              | 1948              |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
|  | \$'000            | \$'000            | \$'000            | \$'000            | \$'000            |
| <b>Direct Debt—</b>                                |                   |                   |                   |                   |                   |
| Federal.....                                       | 15,104,888        | 18,089,359        | 18,048,660        | 17,631,616        | 17,460,635        |
| Provincial.....                                    | 1,805,770         | 1,804,335         | 1,817,524         | 1,746,824         | 1,820,191         |
| Municipal.....                                     | 980,674           | 946,263           | 936,835           | 929,308           | 1,058,671         |
| Totals.....  | 17,891,332        | 20,839,957        | 20,803,019        | 20,307,748        | 20,339,497        |
| Less Inter-governmental Debt                       | 248,686           | 239,199           | 229,645           | 136,318           | 123,841           |
| <b>Combined Direct Debt...</b>                     | <b>17,642,646</b> | <b>20,600,758</b> | <b>20,573,374</b> | <b>20,171,430</b> | <b>20,215,656</b> |
| <b>Indirect Debt—</b>                              |                   |                   |                   |                   |                   |
| Federal.....                                       | 737,668           | 592,810           | 621,058           | 603,468           | 654,803           |
| Provincial.....                                    | 189,180           | 175,549           | 220,459           | 471,599           | 564,509           |
| Municipal.....                                     | 46,686            | 45,865            | 45,994            | 46,852            | 45,728            |
| Totals.....  | 973,534           | 814,224           | 887,511           | 1,121,919         | 1,265,040         |
| Less Inter-governmental Debt                       | 25,000            | 22,656            | 21,710            | 21,094            | 22,377            |
| <b>Combined Indirect Debt..</b>                    | <b>948,534</b>    | <b>791,568</b>    | <b>865,801</b>    | <b>1,100,825</b>  | <b>1,242,663</b>  |
| <b>Grand Totals, Direct and Indirect Debt.....</b> | <b>18,591,180</b> | <b>21,392,326</b> | <b>21,439,175</b> | <b>21,272,255</b> | <b>21,458,319</b> |

The year 1948 showed a continued decrease in the direct debt of the Federal Government but the provincial and municipal debt recorded an upturn. Combined direct debt also increased during 1948 after showing a decrease for two years. Inter-governmental debt, however, continued to decline, the 1948 figure being less than one-half the 1944 total.



## Finances of the Federal Government

Federal Government accounts for the fiscal year ended Mar. 31, 1950, showed a surplus of revenues over expenditures amounting to \$131,500,000 compared with a surplus of \$595,500,000 for the previous fiscal year. Revenues declined for the fourth successive year while expenditures, which reached their peak in 1943-44, reversed their declining trend.

One of the most interesting aspects of federal finance to the ordinary citizen is the growth in the net debt of Canada. The following table is of particular interest since it shows the trend from Confederation down to the latest year, 1950. At Confederation the total net debt of Canada was only \$76,000,000 and represented \$21.58 per head of the population. The First and Second World Wars caused staggering increases; the net debt which was \$336,000,000 in 1914 increased to \$2,341,000,000 in 1921, or from \$42.64 per capita to \$266.37 per capita. By the end of the Second World War in 1946, net debt had reached \$13,421,000,000 or \$1,090.55 per head of the population. The Budget surpluses of the fiscal years ended in 1947, 1948, 1949 and 1950 have reduced the net debt to \$841.07 per head of the population.

### Finances of the Federal Government, Years Ended Mar. 31, 1868-1950

| Year      | Total Revenue | Per Capita Revenue <sup>1</sup> | Total Expenditure          | Per Capita Expenditure <sup>1</sup> | Net Debt at End of Year | Net Debt Per Capita <sup>2</sup> |
|-----------|---------------|---------------------------------|----------------------------|-------------------------------------|-------------------------|----------------------------------|
|           | \$            | \$                              | \$                         | \$                                  | \$                      | \$                               |
| 1868..... | 13,687,928    | 3-95                            | 14,071,689                 | 4-06                                | 75,757,135              | 21-58                            |
| 1871..... | 19,375,037    | 5-34                            | 19,293,478                 | 5-32                                | 77,706,518              | 21-06                            |
| 1881..... | 29,635,298    | 6-96                            | 33,796,643                 | 7-94                                | 155,395,780             | 35-93                            |
| 1891..... | 38,579,311    | 8-07                            | 40,793,208                 | 8-54                                | 257,809,031             | 49-21                            |
| 1901..... | 52,516,333    | 9-91                            | 57,982,866                 | 10-94                               | 238,480,004             | 49-99                            |
| 1911..... | 117,884,328   | 16-87                           | 122,861,250 <sup>3</sup>   | 17-58                               | 340,042,052             | 47-18                            |
| 1921..... | 436,292,184   | 50-99                           | 528,302,513 <sup>3</sup>   | 61-75                               | 2,340,878,984           | 266-37                           |
| 1931..... | 357,720,435   | 35-04                           | 441,568,413 <sup>3</sup>   | 43-26                               | 2,261,611,937           | 217-97                           |
| 1939..... | 502,171,354   | 45-03                           | 553,063,098 <sup>3</sup>   | 49-60                               | 3,152,559,314           | 279-80                           |
| 1940..... | 562,093,459   | 49-89                           | 680,793,792 <sup>3</sup>   | 60-42                               | 3,271,259,647           | 287-43                           |
| 1941..... | 872,169,645   | 76-63                           | 1,249,601,446 <sup>3</sup> | 109-80                              | 3,648,691,449           | 317-08                           |
| 1942..... | 1,488,536,343 | 129-36                          | 1,885,066,055 <sup>3</sup> | 163-82                              | 4,045,221,161           | 347-11                           |
| 1943..... | 2,249,496,177 | 193-02                          | 4,387,124,118 <sup>3</sup> | 376-45                              | 6,182,849,101           | 523-44                           |
| 1944..... | 2,765,017,713 | 234-09                          | 5,322,253,505 <sup>3</sup> | 450-58                              | 8,740,084,893           | 729-86                           |
| 1945..... | 2,687,334,799 | 224-41                          | 5,245,611,924 <sup>3</sup> | 438-05                              | 11,298,362,018          | 932-29                           |
| 1946..... | 3,013,185,074 | 248-63                          | 5,136,228,505 <sup>3</sup> | 423-82                              | 13,421,405,449          | 1,090-55                         |
| 1947..... | 3,007,876,313 | 244-40                          | 2,634,227,412 <sup>3</sup> | 214-04                              | 13,047,756,548          | 1,037-02                         |
| 1948..... | 2,871,746,110 | 228-24                          | 2,195,626,453 <sup>3</sup> | 174-51                              | 12,371,636,893          | 960-31                           |
| 1949..... | 2,771,395,075 | 215-12                          | 2,175,892,332 <sup>3</sup> | 168-90                              | 11,776,134,152          | 892-06                           |
| 1950..... | 2,580,140,615 | 190-43                          | 2,448,615,662 <sup>3</sup> | 180-72                              | 11,644,609,199          | 841-07                           |

<sup>1</sup> The basis of calculation is the estimated population figure as at June 1 of the immediately preceding year. <sup>2</sup> The basis of calculation is the estimated population figure as at June 1 of same year.

<sup>3</sup> Includes non-active advances to railways and transfers from active to non-active assets.

Revenue from taxation accounted for 90 p.c. of total revenues in 1949-50, compared with 88 p.c. in 1948-49. Despite the lower personal income tax rates, revenue from income taxes, sustained by the buoyant condition of the national economy, decreased by only \$25,300,000 over the previous year. Non-tax revenues, reversing the upward trend of the past eleven years, were \$7,300,000 lower than in 1948-49.

Demobilization and reconversion expenditures were \$43,000,000 more in 1949-50 than in the previous year. Increases also occurred of \$127,800,000 in ordinary expenditures, of \$12,700,000 in government-owned enterprises, and of \$4,500,000 in capital expenditures.

Some of the major items of ordinary expenditures were: interest on the public debt, which decreased from \$465,000,000 in 1948-49 to \$439,800,000 in 1949-50; old age pensions, which increased from \$67,000,000 to \$93,200,000; family allowances, which increased from \$271,000,000 to \$297,500,000; and expenditures by the Department of Veterans Affairs, which decreased from \$183,000,000 to \$175,500,000.

### *Summary of Total Revenues and Expenditures, Years Ended Mar. 31, 1946-50*

| Item   | 1946                 | 1947                 | 1948                | 1949                | 1950                |
|--|----------------------|----------------------|---------------------|---------------------|---------------------|
|  | \$'000               | \$'000               | \$'000              | \$'000              | \$'000              |
| <b>Revenues</b>  |                      |                      |                     |                     |                     |
| Customs Import Duties.....                                     | 128,876              | 237,355              | 293,012             | 222,975             | 225,878             |
| Excise Duties.....   | 186,726              | 196,044              | 196,794             | 204,652             | 220,565             |
| Income Tax.....  | 932,729 <sup>1</sup> | 939,458 <sup>1</sup> | 1,059,848           | 1,297,999           | 1,272,650           |
| Excess Profits Tax.....  | 426,696 <sup>1</sup> | 442,497 <sup>1</sup> | 227,031             | 44,792              | -1,788              |
| Sales Tax.....   | 212,247              | 298,228              | 383,012             | 390,174             | 415,222             |
| War Exchange Tax.....  | 41,198               | 338                  | ...                 | ...                 | ...                 |
| Other taxes.....   | 273,886              | 313,741              | 292,378             | 275,550             | 190,590             |
| <b>Totals, Revenues from Taxation</b>                          | <b>2,202,358</b>     | <b>2,427,661</b>     | <b>2,452,075</b>    | <b>2,436,142</b>    | <b>2,323,117</b>    |
| Non-tax revenues.....  | 160,804              | 160,870              | 177,771             | 212,948             | 205,599             |
| <b>Totals, Ordinary Revenues....</b>                           | <b>2,363,162</b>     | <b>2,588,531</b>     | <b>2,629,846</b>    | <b>2,649,090</b>    | <b>2,528,716</b>    |
| Special receipts and other credits                             | 650,023              | 419,345              | 241,900             | 122,305             | 51,424              |
| <b>Totals, Revenues.....</b>                                   | <b>3,013,185</b>     | <b>3,007,876</b>     | <b>2,871,746</b>    | <b>2,771,395</b>    | <b>2,580,140</b>    |
| <b>Expenditures</b>  |                      |                      |                     |                     |                     |
| Ordinary expenditures.....                                     | 1,061,902            | 1,236,235            | 1,380,002           | 1,573,450           | 1,701,260           |
| Capital expenditures.....                                      | 4,508                | 11,200               | 15,656              | 18,473              | 22,924              |
| War, demobilization and reconversion expenditures (special)... | 4,002,949            | 1,314,798            | 634,421             | 425,574             | 468,607             |
| Other special expenditures.....                                | 17,358               | 31,926 <sup>2</sup>  | 63,141 <sup>3</sup> | 34,813 <sup>2</sup> | 37,928 <sup>2</sup> |
| Government-owned enterprises...                                | 1,334                | 10,682               | 18,695              | 39,663              | 52,361              |
| Other charges.....   | 48,177               | 29,386               | 83,711              | 83,919              | 165,536             |
| <b>Totals, Expenditures.....</b>                               | <b>5,136,228</b>     | <b>2,634,227</b>     | <b>2,195,626</b>    | <b>2,175,892</b>    | <b>2,448,616</b>    |
| <b>Deficit or Surplus.....</b>                                 | <b>-2,123,043</b>    | <b>+373,649</b>      | <b>+676,120</b>     | <b>+595,503</b>     | <b>+131,524</b>     |

<sup>1</sup> Excludes refundable portion.

<sup>2</sup> Includes deficits in certain special accounts of the Canadian Wheat Board amounting to \$20,562,264 in 1947, \$4,454,250 in 1949 and \$4,470,531 in 1950.

<sup>3</sup> Includes \$31,450,498 for deficits in certain special accounts of the Canadian Wheat Board and \$13,963,218 for subsidy payments on oats and barley used as feed for live stock.

**The 1950-51 Budget.**—The first Budget for the fiscal year ending Mar. 31, 1951, presented to Parliament on Mar. 28, 1950, proposed only minor tax changes. A change made in the corporate income tax dealt with the problem of accumulated surpluses of private companies by allowing these companies to elect to pay a tax of 15 p.c. on undistributed earnings. The excise tax on toilet soaps was repealed and ice cream, prepared whipping-

cream, and drinks made from fresh milk were made exempt from the sales tax. Purchases by certain defined classes of institutions caring for orphans, the aged, and the incapacitated were also made exempt from the sales tax.

After taking into account the tax changes proposed, a surplus of \$20,000,000 was forecast for the fiscal year ending Mar. 31, 1951, with revenues being estimated at \$2,430,000,000 and expenditures at \$2,410,000,000.

However, because world events in the first five months of the fiscal year necessitated large additions to the Government's expenditures on defence and related requirements, further budgetary proposals for the fiscal year 1950-51 were presented to Parliament on Sept. 7, 1950. Effective Sept. 1, 1950, the rate of corporation income tax on the first \$10,000 of profits was increased from 10 p.c. to 15 p.c. and the rate on profits in excess of \$10,000 was increased from 33 p.c. to 38 p.c. The excise duty on spirits was increased from \$11 to \$12 per gallon of proof and the excise duty on malt was increased from 16 cents to 21 cents per lb. The rate of excise tax on all articles previously subject to a tax of 10 p.c. was increased to 15 p.c. and a number of items not previously subject to the tax, such as household electrical appliances, firearms, motorcycles, golf clubs and fishing rods, were added to the schedule of taxed articles. A tax of 30 p.c. was levied on soft drinks and on candy and chewing gum.

After taking account of the higher level of prices and business activity and the proposed tax changes, the revenue for the fiscal year was re-estimated at \$2,669,000,000. The new expenditure estimate was \$2,654,000,000, leaving a surplus of \$15,000,000 forecast for the fiscal year ending Mar. 31, 1951.

**Borrowings.**—During the fiscal year ended Mar. 31, 1950, the Federal Government reduced its outstanding net debt by \$131,524,953. Total

Government Hydrographic Service vessel "Cartier" on charting operations off the Newfoundland coast. Triangulation stations erected at precisely measured geographic locations are used as landmarks by which hydrographers aboard the vessel locate the ship's position when sounding offshore waters.





redemption of debt during the year, excluding the recurring issues of treasury bills, amounted to \$3,136,526,454, of which \$2,213,293,471 was financed through renewals or conversions, and \$433,904,000 was raised by the sale of new issues to individuals for cash. Such new issues consisted of \$100,000,000 of 25-year 2 $\frac{3}{4}$  p.c. bonds which were sold in the United States; \$288,904,400 was raised by the sale of a new issue of 2 $\frac{3}{4}$  p.c. Canada Savings Bonds, Series IV, for cash.

**Income Tax.**—The Income War Tax Act was introduced during the War of 1914-18 as part of what was known as war-tax revenue. However, it was a war tax in name only, for even before the outbreak of the Second World War it had become a permanent and important part of the taxation structure, and the chief means of raising ordinary revenue. Effective Jan. 1, 1949, the Income War Tax Act was replaced by the Income Tax Act.

Before the outbreak of war the burden of income tax was shared by approximately 250,000 persons; this was expanded to 2,690,000 by 1948. In order to secure as much revenue from taxation as was desirable for the prosecution of the Second World War, the income tax base was broadened and the rates increased. The lowering of exemptions was, of course, the prime influence in expanding the body of Canadian income taxpayers but the higher level of employment and of wage scales also had an important effect. Taxes on income reached a peak in 1943, but a portion of the tax was refunded after the War. Since 1943 there has been a gradual reduction in rates and a raising of the minimum exemptions. In 1949 the minimum exemptions were raised to the pre-war level of \$1,000 for persons taxed as single and \$2,000 for those taxed as married. Although income-tax rates have been substantially reduced since 1943, they remain well above the pre-war rates.

During the Second World War the business profits occurring in an expanded wartime economy were heavily taxed through the Excess Profits Tax Act and increased rates of corporation income tax. Taxes on business profits remained at a peak from the latter part of 1942 until 1945, after which the rates were reduced. The Excess Profits Tax was terminated for individuals on Jan. 1, 1947, and for corporations on Jan. 1, 1948.

The Income Tax Act levies several different taxes on incomes; collections for recent years are given in the following table.

***Collections under the Income Tax Act, Years Ended Mar. 31, 1941-50***

| Year      | General Income Tax |              | Non-Resident Tax | Gift Tax  | Tax on Private Companies | Total Income Tax           |
|-----------|--------------------|--------------|------------------|-----------|--------------------------|----------------------------|
|           | Individuals        | Corporations |                  |           |                          |                            |
|           | \$                 | \$           | \$               | \$        | \$                       | \$                         |
| 1941..... | 103,308,249        | 131,565,710  | 13,042,216       | 226,847   | —                        | 248,143,022                |
| 1942..... | 295,874,285        | 185,835,699  | 28,268,775       | 264,258   | —                        | 510,243,017                |
| 1943..... | 533,915,059        | 347,969,723  | 28,080,797       | 223,093   | —                        | 910,188,672                |
| 1944..... | 809,570,762        | 311,378,714  | 26,943,193       | 1,546,633 | —                        | 1,151,757,035 <sup>1</sup> |
| 1945..... | 763,896,322        | 276,403,849  | 28,599,137       | 532,599   | —                        | 1,072,758,068 <sup>1</sup> |
| 1946..... | 689,506,763        | 217,833,540  | 28,309,619       | 770,369   | —                        | 937,729,273 <sup>1</sup>   |
| 1947..... | 691,989,231        | 196,819,253  | 30,136,146       | 1,538,888 | 41,972,700               | 963,458,245 <sup>1</sup>   |
| 1948..... | 656,873,403        | 351,535,006  | 35,889,028       | 2,268,845 | 12,596,108               | 1,059,848,357 <sup>1</sup> |
| 1949..... | 760,151,969        | 488,549,610  | 43,445,764       | 1,632,930 | 3,440,514                | 1,297,999,404 <sup>1</sup> |
| 1950..... | 619,263,363        | 602,072,622  | 47,474,846       | 2,089,821 | 1,120,510                | 1,272,650,191 <sup>1</sup> |

<sup>1</sup>Includes deferred tax.

### Number of Taxpayers, Total Income and Tax Collected Thereon, by Income Classes, 1948

| Income Class         | Taxpayers        | Total Income         | Total Tax          |
|----------------------|------------------|----------------------|--------------------|
|                      | No.              | \$                   | \$                 |
| Below \$ 1,000.....  | 181,610          | 159,143,000          | 2,572,000          |
| \$1,000 - 2,000..... | 1,014,890        | 1,570,125,000        | 83,480,000         |
| 2,000 - 3,000.....   | 1,001,260        | 2,456,112,000        | 154,374,000        |
| 3,000 - 4,000.....   | 280,670          | 963,776,000          | 88,411,000         |
| 4,000 - 5,000.....   | 85,310           | 381,991,000          | 43,384,000         |
| 5,000 - 10,000.....  | 93,590           | 628,256,000          | 93,661,000         |
| Over \$10,000.....   | 32,600           | 601,367,000          | 181,830,000        |
| <b>Totals.....</b>   | <b>2,689,930</b> | <b>6,760,770,000</b> | <b>647,712,000</b> |

### Number of Taxpayers, Total Income and Tax Collected Thereon, by Occupational Classes, 1948

| Class                     | Taxpayers        | Total Income         | Total Tax          |
|---------------------------|------------------|----------------------|--------------------|
|                           | No.              | \$                   | \$                 |
| Primary producers.....    | 72,700           | 213,104,000          | 20,640,000         |
| Professionals.....        | 23,300           | 140,165,000          | 27,319,000         |
| Employees.....            | 2,356,460        | 5,421,076,000        | 435,547,000        |
| Salesmen.....             | 21,740           | 86,730,000           | 11,238,000         |
| Business proprietors..... | 153,390          | 627,241,000          | 94,154,000         |
| Financial.....            | 56,200           | 257,571,000          | 56,743,000         |
| Estates.....              | 2,130            | 2,833,000            | 628,000            |
| Deceased.....             | 3,200            | 10,141,000           | 1,263,000          |
| Unclassified.....         | 810              | 1,909,000            | 180,000            |
| <b>Totals.....</b>        | <b>2,689,930</b> | <b>6,760,770,000</b> | <b>647,712,000</b> |

### Provincial Finance

The following tables show the gross and net revenues and expenditures of the different provinces for the years 1946-48.

### Gross General Revenues and Expenditures of Provincial Governments, by Provinces, 1946-48

NOTE.—Figures are for fiscal years ended nearest Dec. 31.

| Province             | Gross General Revenues |                |                | Gross General Expenditures |                |                |
|----------------------|------------------------|----------------|----------------|----------------------------|----------------|----------------|
|                      | 1946                   | 1947           | 1948           | 1946                       | 1947           | 1948           |
|                      | \$'000                 | \$'000         | \$'000         | \$'000                     | \$'000         | \$'000         |
| Prince Edward Island | 4,017                  | 5,365          | 5,697          | 3,857                      | 5,092          | 5,086          |
| Nova Scotia.....     | 27,645                 | 38,798         | 40,253         | 24,331                     | 29,306         | 35,371         |
| New Brunswick.....   | 24,420                 | 33,791         | 34,026         | 22,200                     | 27,217         | 32,176         |
| Quebec.....          | 173,427                | 219,269        | 231,508        | 146,754                    | 174,817        | 197,622        |
| Ontario.....         | 180,605                | 255,876        | 254,901        | 169,450                    | 211,237        | 258,059        |
| Manitoba.....        | 28,725                 | 41,508         | 44,107         | 23,170                     | 33,343         | 39,182         |
| Saskatchewan.....    | 45,198                 | 61,907         | 66,226         | 40,112                     | 56,287         | 60,729         |
| Alberta.....         | 43,167                 | 54,626         | 71,347         | 33,408                     | 38,581         | 47,444         |
| British Columbia.... | 65,401                 | 81,672         | 119,669        | 54,893                     | 79,343         | 113,327        |
| <b>Totals.....</b>   | <b>592,605</b>         | <b>792,812</b> | <b>867,734</b> | <b>518,175</b>             | <b>655,223</b> | <b>788,996</b> |

**Net General Revenues and Net Combined General and Capital  
Expenditures of Provincial Governments, 1946-48**

| Province              | Net General Revenues |                |                | Net General and Capital Expenditures |                |                |
|-----------------------|----------------------|----------------|----------------|--------------------------------------|----------------|----------------|
|                       | 1946                 | 1947           | 1948           | 1946                                 | 1947           | 1948           |
|                       | \$'000               | \$'000         | \$'000         | \$'000                               | \$'000         | \$'000         |
| Prince Edward Island  | 3,511                | 4,658          | 4,730          | 4,065                                | 6,305          | 5,915          |
| Nova Scotia.....      | 21,659               | 32,389         | 32,667         | 24,614                               | 35,316         | 44,346         |
| New Brunswick.....    | 20,055               | 28,844         | 28,453         | 25,547                               | 34,130         | 42,484         |
| Quebec.....           | 151,372              | 193,756        | 203,258        | 148,670                              | 189,875        | 234,027        |
| Ontario.....          | 150,732              | 223,213        | 220,024        | 161,752                              | 203,539        | 250,738        |
| Manitoba.....         | 22,729               | 34,004         | 35,902         | 19,218                               | 27,963         | 35,897         |
| Saskatchewan.....     | 37,370               | 53,312         | 56,332         | 35,337                               | 52,539         | 55,375         |
| Alberta.....          | 36,598               | 47,510         | 62,957         | 32,353                               | 43,989         | 55,938         |
| British Columbia..... | 57,763               | 72,004         | 100,678        | 57,322                               | 85,032         | 109,550        |
| <b>Totals.....</b>    | <b>501,789</b>       | <b>689,690</b> | <b>745,001</b> | <b>508,878</b>                       | <b>678,688</b> | <b>834,270</b> |

**Analysis of Net General Revenues of Provincial Governments,  
1947 and 1948**

| Source                                 | 1947    | 1948    | Source                                | 1947           | 1948           |
|--|---------|---------|---------------------------------------|----------------|----------------|
|  | \$'000  | \$'000  |                                       | \$'000         | \$'000         |
| Taxes.....                             | 294,683 | 372,331 | Other revenue.....                    | 4,947          | 923            |
| Privileges, Licences and Permits—      |         |         | Sub-Totals.....                       | 686,615        | 741,857        |
| Motor-vehicles.....                    | 45,571  | 50,573  | Non-revenue and surplus receipts..... | 3,075          | 3,144          |
| Other.....                             | 69,427  | 85,797  | <b>Totals.....</b>                    | <b>689,690</b> | <b>745,001</b> |
| Sales and services.....                | 17,785  | 20,046  | Summary of Liquor Control Revenue—    |                |                |
| Fines and penalties.....               | 1,757   | 2,087   | Taxes.....                            | 9,513          | 10,349         |
| Other Governments—                     |         |         | Permits.....                          | 14,866         | 16,132         |
| Dominion-Provincial Taxation Agreement | 130,469 | 84,272  | Fines and penalties..                 | 413            | 381            |
| Dominion subsidies...                  | 17,336  | 16,965  | Profits.....                          | 99,303         | 102,521        |
| Municipalities.....                    | 1,450   | 1,727   | Confiscations.....                    | 6              | 3              |
| Government enterprises                 | 103,190 | 107,136 |                                       |                |                |

**Analysis of Net Combined General and Capital Expenditures of  
Provincial Governments, 1947 and 1948**

| Function                                     | 1947    | 1948    | Function                                  | 1947           | 1948           |
|--|---------|---------|---|----------------|----------------|
|  | \$'000  | \$'000  |   | \$'000         | \$'000         |
| General government....                       | 28,182  | 34,280  | Local government planning and development | 988            | 1,270          |
| Protection of persons and property.....      | 29,323  | 34,929  | Debt charges.....                         | 71,290         | 88,131         |
| Transportation and communications.....       | 207,470 | 254,650 | Contributions to Municipal Governments—   |                |                |
| Health and Social Welfare—                   |         |         | Shared-revenue.....                       | 1,621          | 6,659          |
| Health.....                                  | 78,439  | 102,361 | Subsidies.....                            | 6,077          | 6,131          |
| Social welfare.....                          | 53,620  | 61,596  | Contributions to government enterprises.. | 5,473          | 9,934          |
| Recreational and cultural services.....      | 3,314   | 4,888   | Other expenditures.....                   | 2,884          | 6,452          |
| Education.....                               | 124,122 | 141,730 | Sub-Totals.....                           | 677,069        | 832,486        |
| Natural resources and primary industries.... | 60,002  | 75,121  | Non-expense and surplus payments.....     | 1,619          | 1,784          |
| Trade and industrial development.....        | 4,264   | 4,354   | <b>Totals.....</b>                        | <b>678,688</b> | <b>834,270</b> |





Provincial Government expenditures on the building and maintenance of highways and bridges amount to about 25 p.c. of their total expenditures.

### Details of Direct and Indirect Debt of Provincial Governments (less Sinking Funds), 1947 and 1948

| Detail                    | 1947             | 1948             | Detail                        | 1947             | 1948             |
|---------------------------|------------------|------------------|-------------------------------|------------------|------------------|
|                           | \$'000           | \$'000           |                               | \$'000           | \$'000           |
| <b>Direct Debt—</b>       |                  |                  | <b>Indirect Debt—</b>         |                  |                  |
| Bonded debt.....          | 1,641,855        | 1,766,978        | Guaranteed bonds....          | 424,520          | 502,423          |
| Less sinking funds..      | 230,756          | 264,059          | Less sinking funds..          | 3,230            | 3,463            |
| Net bonded debt.....      | 1,411,099        | 1,502,919        | Net guaranteed bonds          | 421,290          | 498,960          |
| Treasury Bills (held by)— |                  |                  | Guaranteed bank loans         | 11,328           | 16,002           |
| Federal Government        | 101,932          | 97,481           | Other Guarantees—             |                  |                  |
| Others.....               | 40,457           | 39,872           | Municipal Improve-            |                  |                  |
|                           |                  |                  | ment Assistance               |                  |                  |
| Totals, Treasury          |                  |                  | Act loans.....                | 4,972            | 4,723            |
| Bills.....                | 142,389          | 137,353          | Other.....                    | 34,009           | 44,824           |
| Savings certificates and  |                  |                  | Totals, Other Guarantees..... | 38,981           | 49,547           |
| deposits.....             | 65,688           | 67,020           |                               |                  |                  |
| Temporary loans and       |                  |                  | <b>Totals, Net Indirect</b>   |                  |                  |
| overdrafts.....           | 19,710           | 7,382            | <b>Debt.....</b>              | <b>471,599</b>   | <b>564,509</b>   |
| Bonds due.....            | 1,411            | 439              |                               |                  |                  |
| Bond interest due....     | 7,664            | 958              | <b>Grand Totals.....</b>      | <b>2,218,423</b> | <b>2,384,700</b> |
| Accounts and other        |                  |                  |                               |                  |                  |
| payables.....             | 79,600           | 84,501           |                               |                  |                  |
| Accrued expenditures.     | 19,263           | 19,619           |                               |                  |                  |
|                           |                  |                  |                               |                  |                  |
| <b>Totals, Net Direct</b> |                  |                  |                               |                  |                  |
| <b>Debt.....</b>          | <b>1,746,824</b> | <b>1,820,191</b> |                               |                  |                  |

**Direct and Indirect Debt of Provincial Governments (less Sinking Funds), 1947 and 1948**

| Province                  | Direct Debt      |                  | Indirect Debt  |                |
|---------------------------|------------------|------------------|----------------|----------------|
|                           | 1947             | 1948             | 1947           | 1948           |
|                           | \$'000           | \$'000           | \$'000         | \$'000         |
| Prince Edward Island..... | 12,006           | 13,674           | 40             | 30             |
| Nova Scotia.....          | 108,020          | 118,882          | 3,921          | 2,305          |
| New Brunswick.....        | 111,296          | 127,453          | 4,069          | 8,260          |
| Quebec.....               | 352,370          | 385,093          | 275,041        | 284,053        |
| Ontario.....              | 632,066          | 627,542          | 179,496        | 259,226        |
| Manitoba.....             | 75,774           | 81,246           | 1,257          | 1,040          |
| Saskatchewan.....         | 156,772          | 151,505          | 675            | 652            |
| Alberta.....              | 138,068          | 133,827          | 1,282          | 2,346          |
| British Columbia.....     | 160,452          | 180,969          | 5,818          | 6,597          |
| <b>Totals.....</b>        | <b>1,746,824</b> | <b>1,820,191</b> | <b>471,599</b> | <b>564,509</b> |

**Gross Provincial Bonded Debt, by Currency of Payments, 1946-48**

| Payable in—                                | 1946             | 1947             | 1948             |
|--|------------------|------------------|------------------|
|  | \$'000           | \$'000           | \$'000           |
| Canada only.....                           | 1,030,826        | 1,057,162        | 1,210,291        |
| London (England) only.....                 | 36,912           | 29,957           | 29,958           |
| London (England) and Canada.....           | 16,214           | 11,405           | 8,721            |
| New York only.....                         | 21,905           | 3,000            | —                |
| New York and Canada.....                   | 335,395          | 318,753          | 301,787          |
| London (England), New York and Canada..... | 226,237          | 221,578          | 216,221          |
| Other.....                                 | 4,736            | —                | —                |
| <b>Totals.....</b>                         | <b>1,672,225</b> | <b>1,641,855</b> | <b>1,766,978</b> |

Total direct and indirect debt of Provincial Governments increased by \$347,000,000 between 1946 and 1948. Gross bonded debt which amounted to \$1,767,000,000 in 1948, represented an increase of \$95,000,000 over the total for 1946. This was the third year in succession that provincial bonded debt increased over the previous year's total.

## *Municipal Finance*

Local government in the provinces of Canada was carried on in 1948 by 4,034 incorporated municipalities, urban and rural, many of which supervised special boards, areas, units and districts organized for such limited purposes as the provision of utility, health, and other services, or acted jointly through such bodies. In most provinces the municipalities raised a substantial part of the monies spent on education. They operated under charters or Acts of the Provincial Governments to which, in varying degrees, they are accountable. Sparsely settled areas without municipal organization were governed entirely by the provinces.

**Bonded Debt and Other Direct Liabilities.**—Like other Canadian governing bodies the municipalities of the greater part of Canada borrowed rather freely during the boom period of 1900-12, and again during the 1920's. In 1924 the gross debenture debt passed the billion-dollar mark, and in 1932 it reached a peak of \$1,384,792,777. Despite



borrowing for relief purposes, it then began to decline slowly as capital expenditures were reduced due to the depressed economic conditions and closer provincial supervision, and most municipalities continued to meet their debt charges. Improved tax collections coupled with deferment of needed capital expenditures during the War speeded the decline, which continued until 1945, but levelled off in 1946. In 1947 the rate of capital borrowings by municipalities exceeded debt retirement, and debenture debt increased. The gross total rose again in 1948, and indications are that the growth has continued in 1949 and 1950.

**Municipal Assessments and Tax Levies.**—The major source of municipal revenue in Canada is direct taxation. Taxation revenue in turn is largely derived from levies on the assessed values of real property. Both assessed values and tax rates have been increasing steadily since the beginning of the Second World War with a resultant growth in tax levies. Buoyant economic conditions have resulted in the collection of high percentages of current levies in all provinces.

**Municipal Revenue.**—Estimated municipal revenue for 1948 was \$466,500,000, of which \$334,300,000 or 72 p.c. was derived from taxes on real property, \$54,900,000 or 12 p.c. from other taxes, and the remaining \$77,300,000 or 16 p.c. from other sources, including licences and permits, public utility contributions and provincial subsidies.

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*Education is the most important item on the list of municipal expenditures. The income required for this purpose is derived from local taxation and provincial grants.*





**Municipal Expenditure.**—Support of local schools again required the largest expenditure by municipal governments, totalling \$137,300,000 or 29 p.c. of all expenditure. Other services cost \$262,700,000 or 56 p.c. and debt charges together with provision for debt repayment \$68,900,000 or 15 p.c. Total expenditures were \$468,900,000. The 1939 total expenditure of \$329,038,000 was divided as follows: 25 p.c. for school support, 48 p.c. for other services and 27 p.c. for debt charges and debt retirement.

**Municipal Assessed Valuations, Tax Levies, Collections and Receivables, 1941-48, and by Provinces, 1948**

| Year and Province                   | Valuations on which Taxes were Levied | Tax Levies     | Tax Collections (Current and Arrears) | Percentage of Levies to Collections | Total Taxes Receivable and Property Acquired for Taxes |
|-------------------------------------|---------------------------------------|----------------|---------------------------------------|-------------------------------------|--|
|                                     | \$'000                                | \$'000         | \$'000                                |                                     | \$'000   |
| Totals, 1941.....                   | 7,859,415                             | 272,458        | 237,680 <sup>1</sup>                  | 104·6 <sup>1</sup>                  | 237,133  |
| Totals, 1942.....                   | 7,892,698                             | 275,983        | 239,110 <sup>1</sup>                  | 105·0 <sup>1</sup>                  | 208,406  |
| Totals, 1943.....                   | 7,906,826                             | 278,697        | 298,196                               | 107·0                               | 192,777  |
| Totals, 1944.....                   | 7,963,405                             | 281,403        | 257,188 <sup>1</sup>                  | 109·2 <sup>1</sup>                  | 154,757  |
| Totals, 1945.....                   | 8,155,068                             | 291,693        | ..                                    | ..                                  | 134,021  |
| Totals, 1946 <sup>2</sup> .....     | 5,885,093                             | 230,623        | 235,487                               | 102·1                               | 86,935   |
| Totals, 1947 <sup>2</sup> .....     | 6,237,747                             | 259,941        | 255,748                               | 98·4                                | 79,482   |
| <b>1948</b>                         |                                       |                |                                       |                                     |  |
| Prince Edward Island.....           | 17,626                                | 472            | 473                                   | 100·0                               | 223  |
| Nova Scotia.....                    | 220,347                               | 12,708         | 12,342                                | 97·1                                | 4,002  |
| New Brunswick.....                  | 280,735                               | 9,141          | 8,426                                 | 92·2                                | 2,881  |
| Quebec.....                         | ..                                    | ..             | ..                                    | ..                                  | ..   |
| Ontario.....                        | 3,434,843                             | 149,451        | 148,964                               | 99·7                                | 18,929   |
| Manitoba.....                       | 522,597                               | 27,154         | 26,211                                | 96·5                                | 8,996  |
| Saskatchewan.....                   | 873,153                               | 33,207         | 32,268                                | 97·2                                | 18,858   |
| Alberta.....                        | 626,649                               | 30,852         | 30,991                                | 100·5                               | 18,322   |
| British Columbia.....               | 528,715                               | 28,695         | 28,118                                | 98·0                                | 9,175  |
| <b>Totals, 1948<sup>2</sup>....</b> | <b>6,504,665</b>                      | <b>291,680</b> | <b>287,793</b>                        | <b>98·7</b>                         | <b>81,386</b>  |

<sup>1</sup> Excludes Quebec cities and towns.. available.

<sup>2</sup> Quebec not included, as information not available.

**Direct and Indirect Liabilities of Municipal Governments (less Sinking Funds), for Eight Provinces, 1946-48**

| Province                  | 1946                |               | 1947                |               | 1948                |               |
|---------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
|                           | Direct              | Indirect      | Direct              | Indirect      | Direct              | Indirect      |
|                           | \$'000              | \$'000        | \$'000              | \$'000        | \$'000              | \$'000        |
| Prince Edward Island..... | 2,174 <sup>1</sup>  | ..            | 2,179 <sup>1</sup>  | ..            | 2,384 <sup>1</sup>  | ..            |
| Nova Scotia.....          | 20,419 <sup>1</sup> | 674           | 22,247 <sup>1</sup> | 636           | 26,221 <sup>1</sup> | 612           |
| New Brunswick.....        | 19,091              | 148           | 20,387              | 167           | 26,852              | 201           |
| Quebec.....               | ..                  | ..            | ..                  | ..            | ..                  | ..            |
| Ontario.....              | 213,460             | 20,036        | 243,445             | 17,856        | 295,143             | 16,517        |
| Manitoba.....             | 42,874              | 9,059         | 42,075              | 8,029         | 42,972              | 7,701         |
| Saskatchewan.....         | 51,724              | ..            | 34,070              | ..            | 31,645              | ..            |
| Alberta.....              | 47,838              | ..            | 57,817              | ..            | 65,535              | ..            |
| British Columbia.....     | 82,078              | 13,797        | 86,786              | 14,440        | 95,016              | 16,251        |
| <b>Totals.....</b>        | <b>479,658</b>      | <b>43,714</b> | <b>509,006</b>      | <b>41,128</b> | <b>585,768</b>      | <b>41,282</b> |
| <b>Grand Totals.....</b>  | <b>523,372</b>      |               | <b>550,134</b>      |               | <b>627,050</b>      |               |

<sup>1</sup> Excludes rural schools.



*Exhibition Park, Toronto, where the world's largest annual exhibition is held. For the convenience of the visitors—averaging 170,000 a day for two weeks each year—this "city within a city" incorporates almost every function of a large municipality, from banks and maintenance departments to children's playgrounds.*

### ***Municipal Bonded Debt and Sinking Funds, Selected Years 1919-45, and by Provinces, 1932, 1946 and 1948***

| Year      | Gross<br>Bonded In-<br>debtedness<br>of Muni-<br>cipalities | Total<br>Sinking<br>Funds | Province             | Gross Bonded Indebtedness<br>of Municipalities |                |                |
|-----------|---|---------------------------|----------------------|--|----------------|----------------|
|           |   |                           |                      | 1932 <sup>1</sup>                              | 1946           | 1948           |
|           | \$'000  | \$'000                    |                      | \$'000   | \$'000         | \$'000         |
| 1919..... | 729,715   | 2                         | Prince Edward Island | 2,129  | 3,069          | 3,222          |
| 1925..... | 1,015,950   | 2                         | Nova Scotia.....     | 31,606   | 32,445         | 38,010         |
| 1930..... | 1,271,390   | 2                         | New Brunswick.....   | 24,753   | 24,562         | 30,638         |
| 1935..... | 1,372,026   | 267,709                   | Quebec.....          | 463,614  |                |                |
| 1938..... | 1,302,201   | 269,736                   | Ontario.....         | 504,756  | 221,501        | 254,248        |
| 1939..... | 1,280,856   | 272,010                   | Manitoba.....        | 92,471   | 48,671         | 50,633         |
| 1940..... | 1,244,001   | 259,343                   | Saskatchewan.....    | 59,238   | 29,293         | 26,256         |
| 1941..... | 1,196,491   | 261,459                   | Alberta.....         | 76,892   | 37,334         | 47,002         |
| 1942..... | 1,136,897   | 258,064                   | British Columbia.... | 129,333  | 106,551        | 122,275        |
| 1943..... | 1,074,777   | 254,864                   |                      |  |                |                |
| 1944..... | 1,006,936   | 178,780                   | <b>Totals.....</b>   | <b>1,384,792</b>                               | <b>503,426</b> | <b>572,284</b> |
| 1945..... | 965,450   | 168,365                   |                      |  |                |                |

<sup>1</sup> Debt for rural schools in the Maritimes not included. available previous to 1934; Alberta showed net debt to 1928.

<sup>2</sup> Sinking fund totals not



## ★ Banking

**The Bank of Canada.**—The keystone of the Canadian banking structure is the Bank of Canada, incorporated in 1934 as a central bank of issue and rediscount. Its function is "to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action, and generally to promote the economic and financial welfare of the Dominion".

The Bank regulates the statutory cash reserves of the chartered banks, which are required to maintain not less than 5 p.c. of their deposit liabilities payable in Canadian dollars in the form of deposits with, and notes of, the Bank of Canada. The Bank also acts as the fiscal agent of the Government of Canada and may, by agreement, act as banker or fiscal agent for any province. It manages the public debt and has the sole right to issue notes for circulation in Canada. The Bank is empowered to buy and sell securities on the open market; to discount securities and commercial bills; to fix minimum rates at which it will discount; and to buy and sell bullion and foreign exchange.

The Bank is managed by a Board of Directors appointed by the Government and composed of a Governor, Deputy Governor and eleven directors, the Deputy Minister of Finance being a member of the Board.

**The Industrial Development Bank.**—The Industrial Development Bank, which commenced operations on Nov. 1, 1944, is a subsidiary of the Bank of Canada but operates as a separate entity. Its function is to supplement the activities of the chartered banks and other lending agencies by supplying the medium and long-term capital needs of small enterprises; the bank does not engage in the business of deposit banking. The capital stock of \$25,000,000, now completely paid-up, was subscribed by the Bank of Canada. In addition, the Industrial Development Bank may borrow up to three times the amount of its paid-up capital stock and reserve fund, by the issue of bonds and debentures, thus providing total resources of \$100,000,000.



*Under Canada's branch-bank system, the complete banking service of a large institution is available through each branch, whether it be in a city or in a remote pioneer settlement.*



**Loans, Investments and Guarantees of the Industrial Development Bank,  
by Provinces and Industries, as at Sept. 30, 1950**

| Classification                        | Authorized        | Out-standing      | Classification  | Authorized        | Out-standing      |
|---------------------------------------|-------------------|-------------------|---|-------------------|-------------------|
| Province                              | \$                | \$                | Industrial Enterprise—concl.                            | \$                | \$                |
| Newfoundland .....                    |                   |                   | Printing, publishing and allied industries.....         | 732,300           | 454,077           |
| P. E. Island.....                     | 54,000            | 43,819            | Iron and steel products (incl. machinery and equipment) | 4,011,306         | 2,256,789         |
| Nova Scotia.....                      | 610,986           | 461,297           | Transportation equipment.....                           | 1,331,059         | 1,010,159         |
| New Brunswick.....                    | 1,391,500         | 924,652           | Non-ferrous metal products.....                         | 119,500           | 35,350            |
| Quebec.....                           | 12,449,303        | 8,616,471         | Electrical apparatus and supplies.....                  | 555,000           | 282,500           |
| Ontario.....                          | 11,584,586        | 8,552,687         | Non-metallic mineral products.....                      | 1,984,773         | 1,231,094         |
| Manitoba.....                         | 1,290,250         | 727,070           | Products of petroleum and coal.....                     | 940,000           | 900,661           |
| Saskatchewan.....                     | 1,137,158         | 989,993           | Chemical products...                                    | 2,541,842         | 2,150,652         |
| Alberta.....                          | 1,959,500         | 1,129,691         | Miscellaneous manufacturing industries                  | 875,500           | 522,040           |
| British Columbia and Territories..... | 5,227,300         | 3,915,034         | Refrigeration.....                                      | 2,978,108         | 2,494,061         |
| <b>Totals.....</b>                    | <b>35,704,583</b> | <b>25,360,714</b> | Generation or distribution of electricity               | 95,000            | 43,000            |
| <b>Industrial Enterprise</b>          |                   |                   | <b>Totals.....</b>                                      | <b>35,704,583</b> | <b>25,360,714</b> |
| Foods and beverages.                  | 5,295,633         | 3,724,628         |   |                   |                   |
| Rubber products.....                  | 25,000            | 18,618            |   |                   |                   |
| Leather products.....                 | 567,652           | 399,871           |   |                   |                   |
| Textile products (except clothing)    | 3,244,008         | 2,419,367         |   |                   |                   |
| Clothing (textile and fur).....       | 817,000           | 400,909           |   |                   |                   |
| Wood products.....                    | 5,270,202         | 3,314,471         |   |                   |                   |
| Paper products (incl. pulp).....      | 4,320,700         | 3,702,467         |   |                   |                   |

**Commercial Banking.**—While the aggregate supply of money is determined by the central bank, it rests with the chartered banks to provide the individual credit requirements of commerce and industry of the public generally. There are ten banks chartered under the Bank Act and only they, and two long-established savings banks, in addition to the Bank of Canada, are legally entitled to call themselves “banks” or to use the word “banking” in connection with their business.

The branch bank is perhaps the most distinctive feature of the Canadian system as it exists to-day and for a country such as Canada, vast in area and with a small population, the plan has proved a good one. There has been no bank failure since 1923 and note holders have experienced no losses whatever since 1881.

The ten commercial banks have over 3,400 offices spread out over the country, many located in small villages which would be quite unable to support an independent bank. The head offices of the banks neither take nor lend money—all the banking business is done by the branches, each branch enjoying considerable independence. But the fact that these branches are linked has a very important bearing on the country-wide economic situation.

The primary function of the bank is to provide a safe repository for savings and surplus funds and to furnish credit for carrying on the business of the country. Credit is given in various ways. Direct loans are made, the proceeds of which customers use for purchasing raw materials, paying wages and other operating expenses or for the purchase of goods for resale. Letters of credit are issued to finance the importation of goods. In this way the bank exchanges its well-known and acceptable credit for the less-known credit of its customers. Apart from the deposit and loan facilities provided, the banks render innumerable services to the communities in which they serve.

## Statistics of Individual Chartered Banks as at Oct. 31, 1950, with Totals for Selected Years from 1930

NOTE.—Annual figures are averages from the respective monthly statements except in the case of the numbers of branches which are as at Dec. 31.

| Bank and Year                        | Branches<br>in<br>Canada<br>and<br>Abroad <sup>1</sup> | Total<br>Assets | Liabili-<br>ties to<br>Share-<br>holders | Liabili-<br>ties<br>to the<br>Public | Loans<br>and Dis-<br>counts | Total<br>Deposit<br>Lia-<br>bilities <sup>2</sup> |
|--------------------------------------|--|-----------------|--|--------------------------------------|-----------------------------|---|
|                                      | No.  | \$<br>'000,000  | \$<br>'000,000                           | \$<br>'000,000                       | \$<br>'000,000              | \$<br>'000,000                                    |
| Bank of Montreal.....                | 502  | 2,191           | 84                                       | 2,103                                | 596                         | 340   |
| Bank of Nova Scotia.....             | 354  | 818             | 36                                       | 779                                  | 355                         | 125   |
| Bank of Toronto.....                 | 203  | 470             | 20                                       | 448                                  | 164                         | 67  |
| Provincial Bank of Canada.....       | 135  | 170             | 6  | 164                                  | 58                          | 27  |
| Canadian Bank of Commerce.....       | 519  | 1,755           | 60                                       | 1,691                                | 577                         | 234   |
| Royal Bank.....                      | 693  | 2,452           | 79                                       | 2,369                                | 710                         | 335   |
| Dominion Bank.....                   | 145  | 471             | 18                                       | 452                                  | 191                         | 77  |
| Banque Canadienne Nationale.....     | 237  | 432             | 14                                       | 418                                  | 165                         | 60  |
| Imperial Bank of Canada.....         | 210  | 527             | 17                                       | 508                                  | 205                         | 73  |
| Barclay's Bank (Canada).....         | 4  | 37              | 3  | 34                                   | 7                           | 4   |
| <b>Totals, as at Oct. 31, 1950..</b> | <b>3,002</b>   | <b>9,323</b>    | <b>337</b>                               | <b>8,966</b>                         | <b>3,028</b>                | <b>1,342</b>                                      |
| <b>Totals, 1949.....</b>             | <b>2,890</b>   | <b>8,943</b>    | <b>336</b>                               | <b>8,593</b>                         | <b>2,766</b>                | <b>8,189</b>                                      |
| <b>Totals, 1948.....</b>             | <b>2,811</b>   | <b>8,324</b>    | <b>327</b>                               | <b>7,981</b>                         | <b>2,520</b>                | <b>7,601</b>                                      |
| <b>Totals, 1947.....</b>             | <b>2,718</b>   | <b>7,865</b>    | <b>327</b>                               | <b>7,528</b>                         | <b>2,298</b>                | <b>7,115</b>                                      |
| <b>Totals, 1945.....</b>             | <b>2,619</b>   | <b>6,743</b>    | <b>282</b>                               | <b>6,439</b>                         | <b>1,505</b>                | <b>6,160</b>                                      |
| <b>Totals, 1942.....</b>             | <b>2,642</b>   | <b>4,400</b>    | <b>281</b>                               | <b>4,102</b>                         | <b>1,370</b>                | <b>3,834</b>                                      |
| <b>Totals, 1939.....</b>             | <b>2,861</b>   | <b>3,592</b>    | <b>279</b>                               | <b>3,298</b>                         | <b>1,244</b>                | <b>3,061</b>                                      |
| <b>Totals, 1930.....</b>             | <b>3,598</b>   | <b>3,237</b>    | <b>305</b>                               | <b>2,910</b>                         | <b>2,065</b>                | <b>2,517</b>                                      |

<sup>1</sup> As at Dec. 31 of previous year. Does not include sub-agencies which numbered 665 in 1949, including four outside Canada. <sup>2</sup> Excluding inter-bank deposits.

**Cheque Payments.**—Business operations consist of innumerable individual transactions, the great majority of which employ money either in the form of currency or cheques drawn against bank deposits. It is estimated that about 80 p.c. of the commercial transactions are financed by cheques which serve as an excellent index of the business trend at any given time.

The upward trend of cheques cashed, in evidence since the beginning of the War, continued during 1949, the advance being general in the five economic areas. A similar trend was shown in the payment of salaries and wages, due mainly to an increase in rates, and in the distribution of consumer goods both wholesale and retail. In addition, the levels of the physical volume of production and of prices were slightly more than maintained during 1949.

The amount of cheques cashed in the clearing centres of Canada advanced year by year from 1938 to reach a new maximum of \$87,600,000,000 in 1949. The standing in 1938 was \$30,900,000,000, the increase over the period having been 183 p.c.

Cheques cashed in the five largest cities of Canada make up a great proportion of the country-wide total. The trend in four of the economic areas is dominated by the cheques cashed in these cities, the Maritimes being the exception. In 1948 and 1949, the proportions of the five cities to the Canadian total were 76 p.c. and 75 p.c., respectively. The share was even larger in earlier years, reaching 80 p.c. in 1938. The absolute gap in 1949 was greater than in any other year, but the relative position of the

Canadian banks serve the public in many ways.

An exhibit at the Canadian National Exhibition acquaints the public with the personal-planning service of the Bank of Montreal.



Drive-in offices for the convenience of motorists are operated by the Bank of Montreal at Vancouver and Montreal.



Smaller towns and rural areas are provided with efficient service in modern quarters, typified by the branch of the Canadian Bank of Commerce at Maple, Ont.





five large centres is not so predominant as in previous years, due to greater relative gains in the other centres taken collectively.

### *Cheques Cashed at Clearing-House Centres, 1945-49*

| Economic Area         | 1945                  | 1946                  | 1947                  | 1948                  | 1949                              |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------------------|
|                       | \$                    | \$                    | \$                    | \$                    | \$                                |
| Maritime Provinces... | 1,553,590,758         | 1,604,018,266         | 1,750,654,723         | 1,970,079,395         | 2,317,673,928 <sup>1</sup>        |
| Quebec.....           | 19,309,332,983        | 20,749,359,813        | 22,919,909,358        | 23,689,833,048        | 24,732,489,732                    |
| Ontario.....          | 31,543,361,615        | 30,401,955,884        | 30,433,876,385        | 33,381,605,192        | 36,469,080,580                    |
| Prairie Provinces     | 11,562,164,231        | 11,124,679,682        | 12,853,736,283        | 14,602,310,298        | 16,494,526,390                    |
| British Columbia...   | 4,416,363,574         | 5,367,593,788         | 6,539,916,229         | 7,043,619,628         | 7,540,592,213                     |
| <b>Totals....</b>     | <b>68,384,813,161</b> | <b>69,247,607,433</b> | <b>74,498,092,978</b> | <b>80,687,447,561</b> | <b>87,554,362,843<sup>1</sup></b> |

<sup>1</sup> Data for St. John's, Newfoundland, are included from April, 1949.

## ★ Insurance

Figures showing the results of insurance business in Canada in 1949 included the business in the Province of Newfoundland for the first time, though this addition had relatively little effect on the totals.

**Life Insurance.**—The life insurance business was introduced into Canada by companies from the British Isles and the United States about the middle of the nineteenth century. By 1875 there were at least 26 companies competing for the available business in Canada, as against 51 active companies registered under the Acts of Canada and a few provincial companies in 1949. Of the 53 active companies so registered, 30 were Canadian, 5 British and 18 foreign.

As a result of the adaptation of life insurance policies to the needs of the public and of the growing wealth of the country, the increase in the amount of life insurance in force has been remarkable. The life insurance in force in Canada in 1869 was less than \$36,000,000 as compared with \$15,267,000,000 at the end of 1949, the latter figure including \$414,000,000 carried by provincial life companies and \$444,000,000 by fraternal benefit societies. Thus the total life insurance in force in Canada at the end of 1949 was \$1,126.80 per capita. The premium income from such business increased from \$97,000,000 in 1920 to \$230,000,000 in 1930, and to \$369,000,000 in 1949.

**Fire Insurance.**—As at Dec. 31, 1949, there were 274 fire insurance companies registered under the Insurance Acts of Canada and doing business in Canada, of which 64 were Canadian, 81 were British, and 129 were foreign companies, whereas in 1875, the first year for which authentic records were collected by the Insurance Department, 27 companies operated in Canada—11 Canadian, 13 British and 3 United States. The proportionate increase in the number of British and foreign companies, from 59 to 77 p.c. of the total number, is a very marked point of difference between fire and life insurance in Canada, the latter being carried on very largely by Canadian companies.

The enormous increase that has taken place throughout the years of record in the amount of fire insurance in force is due partly to the growth

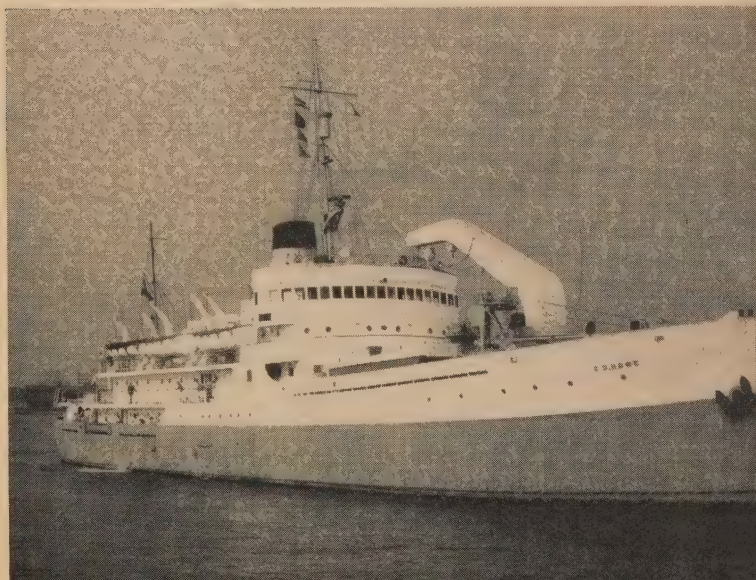
of the practice of insurance; it is also important as an indication of the growth of the value of insurable property in the country, and thus throws light upon the expansion of the national wealth of Canada. In 1869, the amount was \$200,000,000, by 1900 it had increased to nearly \$1,000,000,000, by 1920 to just under \$6,000,000,000, by 1940 to over \$10,700,000,000, and by 1949 to close to \$26,000,000,000; with the business of provincial companies and the business of Lloyds in Canada added, the 1949 figure approximated \$29,000,000,000.

**Casualty Insurance.**—Casualty insurance includes: accident (personal accident, public liability and employers' liability); combined accident and sickness; aircraft; automobile; boiler (*a*) boiler, (*b*) machinery; credit; earthquake; explosion; falling aircraft; forgery; guarantee (fidelity and surety); hail; impact by vehicles; inland transportation; live stock; personal property; plate glass; real property; sickness; sprinkler leakage; theft; water damage; weather; and windstorm. In 1949 there were 267 companies reporting such insurance, of which 60 were Canadian, 73 British and 134 foreign.

Of the classes of business mentioned those accounting for the largest and the most rapidly increasing premium income are automobile, personal accident and sickness (including combined accident and sickness), and personal property for which the premiums written were less than \$36,000,000 in 1941 and over \$138,000,000 in 1949. In the same period the premiums for all the casualty classes increased from \$48,340,334 to \$156,628,963. Premium income of fraternal benefit societies, provincial companies and Lloyds brought the total to \$182,987,107.

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The "C. D. Howe", Government-owned Eastern Arctic patrol ship, which sailed from Montreal July 17, 1950, on her maiden voyage. This floating laboratory replaces the old "Nascopie" as the supply ship for many Arctic posts and will carry medical officers, technicians and scientists on her annual inspection tours.







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